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OF

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VOL. V.

1857-58

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EDITED BY
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THE

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VOL. V.] JUNE, 1857. [No. 1.

ORIGINAL COMMUNICATIONS.

ART. I.—*Valedictory Address to the Graduates in Medicine of McGill College, on their receiving the Degree of Doctor of Medicine and Surgery, conferred by Convocation, 6th May*, 1857. By W. FRASER, M.D., Professor of Institutes of Medicine.

GENTLEMEN—GRADUATES IN MEDICINE.—This day terminates your curriculum of medical studies in this University, and consequently dissolves our relation of teacher and pupil. Its proceedings will bear testimony to your friends and the public, that your arduous devotion to study and the rigid examinations to which you have been subjected, have shown you worthy of the highest academic honor in our profession. In behalf of my colleagues, and in accordance with my own feelings, I offer you our fervent congratulations on this crowning result of your course. On the threshold of the temple of our noble science, whose portals are this day opened wide to receive you, we are met to welcome you as Brethren, to wish you prosperity in your future career, and to offer you a word of parting counsel, prompted by our earnest wish to advance your future interest, and to secure your highest happiness. In the first place, let me earnestly impress on you the important fact, that the profession you have chosen, and are now prepared to practice, is one involving the highest responsibilities, (the lives and happiness of your fellow creatures) which you may at any moment be called upon to undertake, and for the performance of which you are expected to be at all

times professionally and otherwise prepared. However well you may now be versed in the principles of your profession, I would caution you against the fatal belief, which I fear too extensively prevails among graduates in medicine, that this day closes your professional studies. Remember that the science is advancing, that much labor is requisite to keep pace with its progress, that the numerous improvements of the past few years, the rigid method of induction now so extensively applied by men of extraordinary talents, well trained minds and great powers of continuous and laborious scientific investigation, who are devotedly and zealously engaged in the study of the different branches of the Science of Medicine, promises such large prospective additions to our already rich stores of knowledge, as no individual, however talented, can in justice to his patients or himself, ignore. Rather than that you should remain stationary in professional knowledge, whilst the science thus advances, far better would it have been for your own happiness, for the honour of our profession, and for the paramount interest of the community, had you never entered our temple. Not only should you endeavour to keep pace with the science, by reading the medical journals and new publications of merit, but you should also be ambitious, so far as opportunity offers to contribute towards its progress. Whilst thus improving your own powers of observation, description and reflexion, you will at the same time be repaying to those who are to succeed you, the debt you owe to the distinguished men who have gone before us. The departments of medical science, in which the greatest advances have been made of late years, are those of organic *chemistry*, *physiology* and *diagnosis*. The results arrived at by chemico-physiological researches, are fast becoming the basis of scientific medicine, and hold out the prospect of our being at no distant day, as intimately acquainted with the modes of origin, growth, nutrition, action and decay of the organic kingdoms, as an engineer is with the structure, power and action of a steam engine. It requires, therefore, but little reflection to perceive that both the engineer and physiologist, best acquainted with the structure and action of the machinery which they respectively superintend, are by far the fittest parties, for being entrusted with correcting their derangements. And as empyricism has disappeared from the sciences of astronomy and chemistry, as induction and exact knowledge has dispelled the delusions of astrology, alchemy and magic, so will the numerous ephemeral medical delusions of our times, disappear before the rising sun of physiological knowledge, which has already, to a great extent, unravelled the long concealed mysteries of organic life, and enabled us to see, as it were through a glass dimly, the endless design, the wonderful adaptation of means to ends,

which characterise all the works of the Omnipotent Creator. Who can contemplate, with the aid of a microscope, the circulation of the blood in the lowest form of animal life, or the minute structure of the simplest flower, without being charmed with the sight. Improvements in diagnosis, or in the art of distinguishing diseases, have followed, as they always will, in the wake of an advancing physiology. The sciences of *acoustics*, *optics*, *pneumatics*, *hydrostatics* and chemistry, are all made available for physical diagnosis. No department of our profession requires more close observation, more untiring industry than this. Many diseases so closely resemble each other in their train of symptoms, that the highest exercise of skill is required to draw the line of demarcation between them, and if that be not correctly done, the treatment will obviously be erroneous, and human life may consequently be placed in imminent danger. That those who trust their lives to your professional knowledge, may escape such fearful hazard, earnestly do I recommend you to familiarize yourselves with the signs indicative of the various derangements and diseases, and with the points of distinction between those that are most similar, so that you may be enabled readily to distinguish them. The present condition and yearly additions made to the various means of physical diagnosis, deserve your special attention. The French and German writers are, in general, the best to study for learning every thing important in diagnosis. Their hospital records of the symptoms and post mortem appearances have been so exactly kept of late years, as to have enabled the profession in these countries to draw up those rigidly exact descriptions which put it in the power of the careful practitioner to detect and successfully treat a numerous catalogue of maladies which had previously constituted the opprobria of our art. The seat and nature of the disease once correctly distinguished, the treatment follows as a matter of course; until this is done, painful anxiety hangs over the mind of the physician, uncertainty and imminent hazard over the fate of the patient. To all who are observant of the progress of our science, especially in the departments to which I have referred, it is evident that a great revolution is impending in the practice of medicine, and in the public appreciation of medical men. The great physicians of the future will be the great physiologists and diagnosers. Physiological and diagnostic knowledge is now more generally than formerly disseminated among the community, and will tend not only to repress empyricism, but to raise the standard of acquirements among medical men themselves. This is encouraging to those who keep themselves posted up in the different departments of the profession. The knowledge yearly acquired gives power to sustain them during those events that are in-

separable from a medical life, the prospects of which I will in the second place briefly notice. Consulted as you will be in reference to every thing relating to the health of communities, families, and individuals, and brought in contact with all classes in society, your position will be inferior to none, so long as you act like gentlemen; guided by the strict rules of *honor, morality, discretion* and *sound judgment*. Instrumental in saving human life, you will generally meet with ample gratitude, be a welcome visitor, and a trusted friend. On the other hand, reluctant as I am to say one word to discourage your future prospects, I think it right to warn you, that you will meet with much to try your patience, many vexations and disappointments. You will have to listen to many a tale of woe, to tedious descriptions of physical and mental suffering, to console, to soothe, and to encourage the mind, whilst you prescribe for the derangements of the body. Notwithstanding your utmost endeavors, patients will be unreasonable, officious friends will interfere, and your best efforts may be thwarted by a disregard of your directions. On such occasions you will require to exercise great command of temper, and resolutely determine not to allow any amount of provocation to interfere with that calmness and sereneness of mind so indispensably necessary for the practice of medicine. For what may appear unreasonable in the conduct of your patients, you must make great allowance, as physical suffering or protracted indisposition are apt to engender in the minds of parties, the most reasonable whilst in health, an irritable, grumbling and discontented condition towards all, but especially towards their medical attendant, should his efforts for their relief, however judiciously directed, not come up to their expectations. Remember that the *mens sana* can exist only *in corpore sano*. In regard to the interference of friends, any proper suggestion for the welfare of the sick, should be kindly received and acted upon, but every improper interference should be firmly but courteously resisted. In such cases your professional dignity and responsibility are at stake, and you should make no compromise. For at the expense of these, no family's business is worth having.

It will also happen when your practice has been unsuccessful that you will be unjustly blamed, or it may be, that whilst you are doing all that skill and attention can do, you will be unceremoniously dismissed, and your professional reputation assailed. These are disagreeable occurrences, especially to those of you who are sensitive. I know of no better antidote than that "power of professional knowledge" to which I have already referred, and the conscientious conviction of having applied it to the best of your ability. Let such events not discourage, but rather stimulate you to greater industry, so that you may outlive all calumnies,

and convince those who have lightly esteemed your skill, that they have done you injustice. By acting thus, time will do you all the justice you really deserve. From the nature of your calling, you will be subjected to trials of a different and far more distressing kind. I allude to the progress and termination of fatal disease which your utmost skill has failed to arrest. That you should be prepared to meet with composure those closing scenes, which you must inevitably witness is unquestionable, but that you should feel like men, on seeing the failure of all your best efforts to save a valuable life confided to your care is equally natural. How distressing to behold the group of weeping dependant children with the affectionate wife, watching the heaving breast, the faltering speech and gazing for the last time upon the glassy eye of the partner of her life. Of the husband bending over the chosen guardian, the dying mother of his offspring. Of the affectionate mother in her utmost anguish, closing the eyes of the darling child, her pet, her pride, her hope, whom she had fondly anticipated would have performed a similar office for her. In such trying scenes as these, your best consolation will be the conscientious assurance that you have brought all the means available by our art to bear upon the particular case, but that a higher and stronger power than yours had willed it otherwise. Although it belongs not to ours but to another and highly useful profession to teach religious faith, yet questions of a medico-theological nature, must necessarily be often referred to our decision. In cases of dangerous illness, you will often be interrogated relative to the probable result, and importuned by friends, as to the expediency of inviting and admitting to conversations with the sick, some member of the clerical profession. Far be it from me to advise you to deny your patients the consolations of our holy religion, or seek to loosen the Christian's hold on heaven. But I would earnestly impress upon you the necessity of recognising the powerful agency of depressing mental influences upon enfeebled physical functions, the great importance of not prematurely snatching from the patient the only prop—*the stimulus of hope*—frail and fragile as it may be, upon which our prospects of his recovery rests. To inform a man that he must prepare for death,—that his hours are numbered, to bring about his couch the wailing of deep distress, when reasonable expectations exist of his ultimate recovery, would, in certain temperaments, induce the prophetic result. And even in the strongest minded, would materially lessen the chances of recovery, or at least retard convalescence. At the same time that I thus caution you against any premature expression of opinion calculated to deprive your patient of all hope of recovery, whilst that desirable termination of his case may yet be possible, I must also warn you not to deceive

a dying man, than which no greater injustice can be practiced. When every rational expectation of his ultimate recovery must be abandoned, deal fairly with him, answer him candidly, his temporal affairs may require arrangement, his eternal interest may depend upon your answer. This painful duty should be done with great delicacy, and in such a manner as to soothe and elevate, and not to depress the troubled mind, but rather to cheer it on the verge of its passage through the dark valley, to the mansions of that Being who is the fountain of life, of justice and mercy, and in whose presence there are joys for evermore.

Gentlemen, you must necessarily be frequently brought in contact with your fellow practitioners, cultivate with them, as far as possible, the most amicable relations and reciprocate friendly offices. Attempt not to establish your reputation at the expense of a professional brother, nor seek that which is based on the precarious tenure of popular favor, but endeavor to rear it upon the firm and lasting basis of substantial merit. Cultivate your profession with ardor. Rely mainly upon yourselves, trust not to the freaks of fortune. Commence your practice with proper, with elevated motives, and prosecute it with corresponding consistency. You have before you an eventful career. Sully it not by any conduct unbecoming gentlemen, be guided by the rules of honor and morality; be zealous, circumspect and discreet. Act thus, and I am sure I speak the feelings of my colleagues, in offering you the assurance, that wherever you may be respectively engaged in exercising your high calling, we shall rejoice in your success, and revert with proud satisfaction to the period when it was our pleasant office to aid you in your preparatory labors.

Gentlemen.—Farewell—Farewell.

ART. II.—*On the Successful Treatment of Hydrarthrosis of the Knee Joint, by Puncture and Injection of Iodine.* By ROBERT L. MACDONNELL, M.D., Surgeon to St. Patrick's Hospital, Montreal.—Formerly Lecturer on the Institutes of Medicine, and on Clinical Medicine, University of McGill College, &c.

The practice of treating Hydrarthroses by Puncture has been advocated by French Surgeons, particularly by Malgaigne, but as the plan frequently failed, Bonnet of Lyons was led to try the effects of Injection with Iodine, as in cases of Hydrocele, and the success he met with, induced Velpeau, Jobert, Dieulafoy and Leriche to adopt the practice, which in the hands of these Surgeons has been eminently successful.

The almost universal condemnation of this method of treatment by recent British writers on Surgery*, has done much to retard, if not to prevent

* In order to place before the reader the views of our latest Surgical authorities on this point, I shall here quote from their recent works, merely observing that some of them, as Skey and Liston are silent on this point, and I have not yet seen the last edition of Professor Syme's Work.

"Lately it has been proposed (says Professor MILLAR,) to treat the part as if it were a hydrocele, to draw off the serum by tapping, and subsequently to inject a solution of Iodine. But the practice seems much more likely to effect disorganization of a joint, than its cure. And, until ample experience shall have declared it a safe procedure, we shall hold such tamperings with the larger articulations, the Knee be it remembered, is the most frequent seat of the disease, to be in the highest degree rash and unwarrantable."—*Principles of Surgery.*

If all Surgeons should be deterred from the practice, how is the ample experience which Mr. Millar desires, to be acquired?

"The practice (says Mr. FERGUSSON,) of Puncturing such a joint as the Knee to permit the escape of fluid in cases of Hydrops articuli, has been spoken of familiarly by some Foreign Practitioners, but neither in Scotland nor in England where such an affection is by no means uncommon have I ever seen an instance where such a proceeding could have been justifiable."—*Practical Surgery.*

SOUTH, in his excellent translation of Chelius, observes, "As to the use of Injections after emptying the joint of its contents, as advised by Velpeau, and presently to be mentioned, I think it cannot be too much deprecated. I doubt whether any English Surgeon would risk his reputation and the safety of his patient, by a practice which must be attended with almost certain mischief." And again, in alluding to the strength of the Injection used by BONNET,—[half a drachm of Iodine to one drachm of Iodide of Potash, in four ounces of water,] he adds, "If there be no mistake in the proportions given for this injection, which unfortunately I have not the means of verifying, it must be highly caustic, and such as no English Surgeon, I think, would dare to throw into a joint, though a French Surgeon might." This slur on the professional character of men like Bonnet and Velpeau is in very bad taste.

Mr. Ancel in his Report on Surgery, in *Ranking's Retrospect* for 1850, adopts Mr. South's views and quotes with approbation his distinction between French and English Surgery.

Mr. ERICHSON is the only writer who appears to approve of the treatment, though he has no experience of it himself. "If these means fail, we have a very powerful means of cure at our command in the injection of the joint with Tincture of Iodine. This plan, a sufficiently bold one, has been much employed in Paris by Jobert and Velpeau, and in Lyons by Bonnet. These Surgeons use the Tincture diluted with two or three parts of water. A small trocar is introduced into the joint, a moderate quantity of the Iodine solution is thrown in, and after being left for a few minutes, allowed to escape. Inflammation of the joint, which is a necessary result of this procedure, comes on. This is then treated by ordinary antiphlogistic means, and according to the statement of the French Surgeons, has in no case been followed by any serious consequences, but in

its adoption, by their countrymen, but having met with cases of hydrarthrosis that had resisted all other plans of treatment, including simple puncture, and having derived very satisfactory results from injections of iodine in hydroceles of all sizes, as well as in synovial bursæ in the vicinity of the knee joint itself, I was not deterred by the prohibitions of authors, however eminent, who had no personal experience of the treatment they condemned, and some of whom had not studied the writings of the practitioners whose doctrines they so unreservedly denounced.

It is therefore with the view of bringing this practice under the notice of Surgeons in this country, and elsewhere, that I have been induced to publish the following cases, and to point out some modifications of the operation that experience and reflection have suggested to me.

I have now treated successfully five cases of hydrarthrosis of the knee joint by this method, and as three of them have been witnessed by my brother practitioners in this city, I prefer giving them in illustration, to detailing my two other cases which occurred in private practice, and of whom I have had no information since they left Montreal. It is enough to mention, that they did not leave till they were quite satisfied, that a cure had been effected. In almost all particulars their symptoms both before and after the operation, resembled those of the patients whose cases I am about to detail.

CASE.

A. P., a cooper by trade, aged 26, consulted me, April 11th, 1853, on account of an affection of the right knee joint of four year's duration. He was a thin middle-sized man, without any marks of scrofula about him, of dark complexion and bilious temperament. He stated that the present disease began four years before, with pain in the right knee, which gradually increased, and was soon followed by perceptible swelling of the joint, and these symptoms becoming daily more distressing, he consulted several surgeons of this city, and adopted various remedies recommended by his friends, without benefit. For a year before I saw him, he was unable to work at his trade and could not

several instances by a complete cure without anchylosis, a new and healthy action having been imprinted on the synovial membrane. This mode of treatment does not appear as yet to have met with much support in this country, yet it certainly deserves a trial, though it should not be lightly had recourse to, as it is evident that the induced inflammation might exceed the expected limits."—Erichsen's *Science and Art of Surgery*.

walk, except with the aid of a crutch and cane. It is unnecessary to detail the various plans of treatment that had been pursued; suffice it to say, that the joint bore evidence of all the usual remedies for chronic synovitis having been employed On examination, I found the joint much enlarged, being four inches greater in circumference than the opposite one: but this enlargement was not so perceptible in the joint itself, as in the circumference of the thigh immediately above the patella, where there was a large oval-shaped swelling extending along the outer side of the tendon of the rectus femoris, to a distance of nearly five inches, and communicating under that tendon, with another swelling, of a similar shape but much smaller, on the inner side of the thigh. At each side of the ligamentum patellæ there were small tumours which fluctuated and communicated with those above, giving to the joint the *bosselé* appearance so well described by Bonnet. The integument was not discoloured except from the effects of previous treatment; there were no enlarged or tortuous veins on the surface of the tumours; pain at the lower edge of patella and inner side of the knee increasing at night, or after attempts at walking, was complained of. When at rest, the leg was usually flexed, and then the joint presented a more globular form than when the leg was fully extended, the patella appeared on the summit of the swelling, but when extension was made, the tendon of the rectus, the patella and ligamentum patellæ appeared depressed, and the tumours already described, became better developed. There was no emaciation of the leg or thigh.

Being satisfied that the ordinary plan of treatment would not succeed, I determined to puncture the joint and let out its contents, as from the great size of the swelling, I was anxious to reserve the injection of the sac until it had become somewhat diminished, in the event of its filling again after puncture. Assisted by Dr. Jones, Surgeon to the Montreal General Hospital, I tapped the outer and larger tumour with a small hydrocele trocar, taking care to make the puncture at the part most remote from the joint, and drew off a large bowlful of fluid, of a straw colour and closely resembling the contents of a hydrocele. The reader may conceive the quantity of fluid contained in the sac, when he is informed that I brought away, for chemical and microscopic examination, the full of a Florence oil-flask, besides what was spilt and left at the patient's residence. The operation produced no inconvenience, adhesive plaister was put over the aperture, and the joint bound up in a wet bandage, another wet bandage was carried from the ankle to a distance above the knee, a padded splint was placed under the knee, and so fixed above and below, as to prevent the least motion in

the joint. Small doses of Tartar Emetic were administered, low diet prescribed, and directions given that the bandages should be kept moist with luke-warm water.

It is unnecessary to detail the daily symptoms. For the first twenty-four hours there was no pain complained of, and the patient appeared very comfortable, but on the second day, the joint began to swell, and I was obliged to loosen the bandage slightly. The swelling increased gradually but without any increase of suffering for the next ten days. I now determined to avail myself of the reduced size of the hydrops, to puncture it again, and inject the sac with Iodine, which I did on the 12th day from the first operation. This was done in the following manner. The leg being extended, a wet bandage was placed round the lower part of the knee joint, and carried up to a level with the upper edge of the patella. It was given in charge to an assistant with directions to draw tightly upon it, whilst the fluid flowed through the canula. By this means the contents of the lower part of the synovial sac were pushed up into the pouch above the level of the articulation, making the upper tumour more full and tense, and serving to protect the articulating surfaces, from the first effects of the injection. When the fluid was drawn off, about *two drachms of the strongest Tincture of Iodine with an equal quantity of luke-warm water* were injected through the canula, and allowed to remain; care being taken, by changing the position of the joint, and manipulating the sac, that it should come in contact with the whole inner surface of the synovial membrane lying in front of the femur.

The wet bandage was now carried round the limb, to a distance of six inches above the patella, and moderate and equable pressure was thereby exercised upon the point. A long padded splint was applied, and perfect rest of the joint thus secured. The patient complained next day of severe pain, but not so great as to oblige me to remove the bandages. An opiate was given for the first three nights, and after that, the patient felt so well, that he left his bed on the fourth day, and I ceased to attend him at the end of three weeks. I have not seen him since, though I hear frequently of him. He soon returned to his trade, and has worked at it for the last four years without any return of the disease. For some time after the operation, the affected limb remained weak, and yielded in walking, but his friends assure me he is now quite well, and walks without the least lameness. At his recommendation the patient whose case immediately follows, was sent to me by a Society that had supported him for the last two years.

Case II.

A. C., aged 40, cooper, a dark complexioned man of slender make and unhealthy appearance, consulted me under the following circum-

stances. For the last *four* years he had suffered from an affection of the left knee joint, which had rendered him unable to earn his livelihood for two years past, since which period, he has been supported by a charitable institution in this City. He states that he has been treated by *thirteen* medical men, and his knee joint bears marks of frequent cupping, moxas, issues, and pustulating liniments and ointments. He has been blistered several times, and has taken a great deal of medicine internally. The usual quack nostrums resorted to, by persons of his rank, when they have in vain sought relief from scientific surgery, have also been tried in succession, and so convinced was he, that it was useless to attempt anything further, that he had abandoned all hope of recovery, when he heard of the patient whose case has been described. It is unnecessary to detail at great length the symptoms he complained of, but in a few particulars his case differed from the former one. *The leg and thigh were much emaciated*, the swelling was greatest on the *inner* side of knee joint and the corresponding side of the patella, and though the joint appeared much larger than the other, it was only two inches greater in circumference. The patella was pushed forward very much, and on examining the inner side of the joint, the crackling sensations spoken of by authors were easily detected. The leg was flexed, and extension caused pain. During the day he suffered less than at night. I advised him to enter St. Patrick's Hospital, where I operated on him, on the 13th April, 1857, being assisted by my colleagues Drs. David and Howard.

The puncture and injection were performed precisely as in the former case, and the same precautions taken to have the joint firmly bandaged from below. I need not fatigue the reader with the daily details of the case; for, truth to say, nothing worthy of note occurred. There was no swelling or pain in the joint, no fever, no uneasiness whatever; and though my directions were very explicit that he should not attempt to move the joint, yet I had great difficulty in persuading him to remain quiet in bed. The wet bandage was continued for ten days; then a dry one was kept applied for a few days; and finally, the knee joint was put up in a starched bandage, and gentle use of the limb permitted. From the beginning till the end of the treatment, there was not a single symptom present to cause one moment's anxiety.

Case III.

This case, also witnessed by my colleagues, Drs. David and Howard is still more encouraging; for, though the operation was performed under very unfavourable circumstances, yet the perfect success of the treatment must do much to remove the prejudice that exists against it.

A dark complexioned middle-sized man, aged 25, a carriage-maker, who had come from the United States to consult me, presented the following appearance: The right eye was prominent, owing to caries of the malar bone which had left a deep depression, corresponding to its orbital portion; the nose was depressed slightly in the centre, from the destruction of both lachrymal bones, with corresponding parts of the nasal and superior maxillary bones. The surface of the body was marked with scars, the results of former ulcerations; and from the carious bones of the nose fœtid discharge was taking place, and the two holes above the diseased lachrymal bones were filled up with pledgets of charpie; a most offensive fœtor was exhaled from his nose and mouth. In addition to the above diseases, he presented a well marked hydrarthrosis of the left knee, of *seven* years duration, which had been so distressing for the last two years that he had been almost unable to put the foot to the ground. For the first year, he says, he was able to keep down the disease by rest, counter-irritation, and internal remedies. For the next three years, he was able to walk about with the aid of a staff, and to work at some parts of his trade which did not oblige him to stand. He also sought other employments requiring less use of the limb. For the last two years, he has been under medical treatment in different hospitals in the United States; and though the disease of the facial bones is distressing, yet, as the affection of the knee prevents him earning a livelihood, he is more anxious about it than his other maladies.

The left knee was enlarged to the extent of two inches and a half, both below and above the patella, and the enlargement was more of an oval shape than globular, and was not greater on one side of the rectus femoris than the other, but seemed to lie mostly under its tendon, pushing it forward and giving to the upper part of the swelling an abrupt commencement. When pressure was made upon one side of the rectus tendon, the fluid was pushed to the opposite side, making a prominent tumour. The fluid could be easily made to pass from one portion of the joint to the other. The integument appeared thicker and paler than in the two former cases, and was not so much discoloured from local treatment. As the patient had himself witnessed the result of the treatment in the second case, he gladly consented to my proposal to adopt the same plan with him.

The puncture and injection were performed as already described, on April 28th, 1857. The quantity of fluid drawn off did not amount to more than six or seven ounces. It was clear and yellow, presenting the usual characters of the contents of these dropsies. The integument was not thinned so much as in the four other cases. No pain or swell-

ing followed the operation, and notwithstanding his cachectic appearance and bad constitution, the progress towards cure was uninterrupted by the occurrence of a single bad symptom.

Many of those who object to the above plan of treatment, do so under an erroneous idea of the nature of the disease for which it is recommended, and also of the results that are expected to be derived from it. Thus, we find some who have written and spoken against it, confounding simple chronic hydrarthrosis with white swelling (tumeur blanche), and objecting to the injection of a dropsical joint, because the treatment did not succeed in a completely disorganized and suppurating articulation. Now, I would wish it to be distinctly understood, that it is to *pure uncomplicated chronic hydrops* of the knee joint, that my suggestions as yet apply; for I have not employed the treatment in any other joint, and though I do not believe that injection of iodine would do any harm to a joint already destroyed by ulceration, yet I wish the point to be clearly understood, that it is not in such affections I recommend it. It has also been stated that serious consequences must necessarily follow the mere puncture of so large a joint, and *a fortiori*, the injection of it with iodine, or any other irritating substance, must be extremely dangerous. I shall not here occupy my reader's time in proving the difference, as to consequences, between the puncture of a joint in its *physiological* condition and a similar wound inflicted upon it in its *pathological* state. Until the surgeon shall have acquired clear and distinct ideas on this point of practice, he cannot understand the rationale of injections into joints, the seats of chronic synovial effusions; nor of incisions into large and small joints already in a state of suppuration, as recommended by Gay and others, and which (as regards the smaller joints) I have myself often performed.

There is another objection urged against this practice, founded on the supposition that excessive inflammatory action must necessarily follow the injection, and that anchylosis or even the death of the patient might ensue. In this, as in other instances, one fact is worth a hundred theories. Puncture and injection have been performed not only without bad consequences, but with the greatest success; therefore, to discuss this point any further would be fruitless. But some of the opposition to the practice may be ascribed to the views of Bonnet himself, and to his method of operating. He injected the joint, with the express object of exciting an acute arthritis, which being combated in the usual manner, led to the removal of diseased action from the articulation, and no steps were taken to prevent this excessive inflammatory process. Now, it is evident, that, as in hydrocele, the radical cure is often effected, not

by inducing violent inflammation of the sac, but by modifying its diseased secreting action, so we should endeavour to induce merely a slight change of action in the synovial lining of the joint; and adhere, as closely as possible, to the rule laid down by Velpeau and Cabaret to procure in shut cavities, containing effused fluid, an irritation which should be constantly adhesive and never purulent."

By the method which I recommend, the fluid is forced upwards from the articulation to the synovial bag above the joint lying on the anterior surface of the femur, and when the fluid is withdrawn and only half an ounce of iodine solution injected, the opposed surfaces of the sac are brought into contact and retained in that position by the gentle and equable pressure of a well applied wet bandage. By this means, air is prevented entering the joint, the injected fluid is spread out evenly over the whole synovial surface, and becomes still more diluted by admixture with the secretions of the parts, and a healthy action taking place, excess of exudation and engorgement are prevented, and it is not unlikely that adhesion occurs in the opposed surfaces of the dilated pouch in front of the femur. This result is still further favoured by retaining the joint in an immoveable position by bandaging it to a strait splint, and by keeping the patient upon cooling diet. Bonnet recommends us to push the trocar down in a perpendicular direction from the front of the tumour till it strikes the femur. I see no advantage in piercing the synovial membrane in two places, and in wounding the femur; nor have I followed his other direction to inject a quantity of iodine solution, equal to the amount of fluid drawn off. In my practice, I have thrown in only two drachms of strong tincture mixed with two of luke-warm water.

In conclusion, I would wish it to be understood, that I do not advise the above line of treatment to be pursued, except in simple uncomplicated hydrarthrosis, that has resisted all other remedies, and that has led to loss of use of the limb, or has prevented the patient earning a livelihood, and enfeebled his constitution by protracted suffering.

Place d'Armes Hill, Montreal.

ART. III.—*On the treatment of Uterine Hæmorrhage.* By F. S. Verity, M.D., Hemmingford.

The subject of Uterine Hæmorrhage is one of such fearful import to patient and practitioner, that no apology is needed for any, the most imperfect contributions, if they add one iota only of clinical informa-

tion to our general stock of knowledge on this interesting subject; and I deem it the duty of every practitioner, especially country co-fréres, who are thrown upon their own resources in so many trying scenes, to communicate for the benefit of their medical brethren any hints or facts that experience has shewn to be useful in the practice of his profession; impressed with these feelings, I report the following cases, totally disclaiming any novelty of treatment; I publish them solely to shew my mode of practice in these difficult cases, leaving my readers to adopt or endorse any part of my practice they think worthy of their attention.

It is strange that even at the present day, with all our accumulated experience, there should be found in the profession, such diverse opinions as to the effects of *Ergot of Rye and Opium*, in restraining and controlling Uterine Hæmorrhage.

In Books and Lectures, the principles upon which these drugs act, are explained, and yet when we come to reduce them to practice, too often we are disappointed in our expectations. Is it from the uncertainty with which the remedies act? Or is it from not clearly comprehending their *modus operandi* in Uterine Hæmorrhage?

The latter I take to be the case;—for it is not uncommon even now, to hear one practitioner condemn the Ergot and extol Opium as a useful remedy in Uterine Hæmorrhage; while another will stoutly maintain the converse. They both, in my opinion are partly right, and partly wrong; and the object of the following report of cases, is to shew the principle on which each of these invaluable remedies is administered in Uterine Hæmorrhage.

Case No. 1.—Mrs. B., aged 35 years, has had 6 children, the eldest 13 years old, youngest 2 years, was brought to bed with her 7th child at 6 a. m., after natural labour. A nurse attended her. Having been sent for, (the journey was a long one,) I saw her at 8 o'clock, p. m., of the same day, 14 hours after the birth of the child. The first thing that attracted my notice, was a large pool of blood at the bed side;—the poor creature was pallid and cold, tossing from side to side, moaning and sighing, with a wild expression of the eye. The attendants were in a state of fearful excitement, and the whole scene was a frightful one, for she was on the verge of death. Upon examination, I found the cord (as usual on such occasions) tied to her thigh; it was as limp and thin as a piece of wetted tape, and I found more, that I had a case of *hour glass contraction* to encounter. The history is the old one; placenta not coming away, the nurse set to pulling at the funis, till she stretched it almost to a rupture, and brought on irregular uterine action, thus causing the mischief.

As there was no time to be lost, I administered a strong glass of brandy and water, cold; containing 30 drops of Tinct. Opii, warmth and friction to various parts of the body, and the usual routine in such cases. In about an hour she rallied, and I proceeded to remove the placenta. The contraction was still strong, but it soon gave way before the conical hand. Keeping the broadest part of the hand on the structure, I awaited uterine action, which presently came on, the fundus resumed its proper order of contraction, and the placenta and my hand were forced down;—letting the placenta glide past my hand, I retained the latter in utero, until firm contraction took place, and then withdrew it; bandaged her in the usual manner, and gave her 10 drops of Tr. opii in beef broth, to keep the uterus quiet; for the loss of an ounce of blood in her state might have destroyed her.

In this case, Opium was first of all given to overcome the stricture of the Uterus, that end attained, I gave the 2nd dose to quiet any irregular action of the Uterus, as after pains of every description are generally accompanied by some loss of blood, and in her then weak condition, the most trifling loss would assuredly have been fatal; and again, I thus obtained the well known beneficial effects of Opium, where the vital powers have been reduced by hæmorrhage. Her convalescence was a long one, but she ultimately recovered.

Case No. 2.—Mrs. C, aged 28, the mother of 4 children; in her 5th labour, which was of 6 hours duration, she was attended by a Midwife; the placenta *I was told* came away voluntary; after which, she was bandaged, and to all appearance, was comfortable and safe. In the course of 20 minutes she complained of losing a great deal, the flow however stopped, but was shortly renewed, being accompanied by rather sharp pains; this went on for 2 or 3 hours, when she began to be restless, giddy, and losing her sight. I was immediately sent for, I found her in a very dangerous condition, faint and vomiting, no time was to be lost; I introduced my hand, and turned out the clots, the Uterus then, contracting well, I now gave her ¾ grains of Morphine, and bandaged her firmly and properly; the Hæmorrhage ceased, indeed she lost nothing after the exhibition of the sedative. I was *now* told, that the Midwife, instead of waiting for the contractile efforts of the Uterus to throw off the placenta, *had introduced her hand somewhat ruddy*, and taken it away regardless of the cries of the woman; hence the mischief that followed.

In this case the hæmorrhage was kept up by the irregular contractile efforts of the Uterus, and her life was in great jeopardy; but the Opium quieted all this, and placed her in safety; this case illustrates a frequent

cause of hæmorrhage, and Opium is our sheet anchor, the indication being to relieve irregular contractions of Uterus—the Ergot in such cases only aggravates the evil and destroys our patient.

Case 3.—Mrs. P., aged 30, has had 3 children; I attended her in each labour; her children were rather small when born, but the abdomen, during gestation, was largely distended by liquor amnii. In her first confinement she had frightful flooding, a rather unusual circumstance in a primapara; the hæmorrhage in her case was due to the absence of contractile efforts after the birth of the child; the Uterus being in a state of complete atony from over distension by liquor amnii; warned by the experience thus acquired in her first lying-in, I was prepared to meet the difficulty in the ensuing labour—I treated her during the labour according to acknowledged principles in such cases; but towards its termination, I exhibited a dose of the Ergot, which kept up the uterine action after the expulsion of the child, and the result in each labour, has been powerful efforts to throw off the placenta, and perfect contraction of the Uterus. She loses nothing under this treatment, in each succeeding delivery I have similarly treated her, and always with success. In this case, the Ergot was my main reliance, availing myself of its well known property in bringing on uterine contraction, I exhibited it in time to rouse the sluggish organ to throw off the placenta, and contract on itself and thus stop the hæmorrhage. Opium in a case of this sort, would certainly destroy the patient.

Case 4.—Mrs. M., aged 49, has been pregnant 17 times; has 11 children alive; strong, good constitution, very fat, with large, flaccid, and pendulous abdomen. I have attended her with 6 of her children. In the first of these labours, I had to treat her with Tr. opii; she then had hæmorrhage, as in Case No. 2, caused by irregular uterine contraction, after the expulsion of the placenta, and she did well; but in her next labour, (which was somewhat tedious,) after the expulsion of the child, the Uterus was perfectly inert, and I failed, by the diligent use of the means usually resorted to in such cases, to rouse it into action. Hæmorrhage commenced in about 10 minutes after the child was born, and was proceeding to dangerous lengths in spite of all my efforts to check it; I now gave her one drachm of Tincture of Ergot, and in 15 minutes the Uterus was roused into action, the placenta expelled, and I had the satisfaction to feel the Uterus well and firmly contracted above the *pubes*. In her succeeding labours, I was always prepared against the recurrence of the Hæmorrhage, about a quarter of an hour before the birth of the child, I gave her a dose of the Ergot, and with success on each occasion.

These cases afford examples of the principles on which the Ergot and Opium should be administered in Uterine Hæmorrhage. No. 1 and 2 are types of a large class of cases of flooding, which are to be successfully treated by Opium, while No 3 and 4 exemplify another class of cases of a very dangerous character, and which require the prompt exhibition of the Ergot to ensure the continued action of the Uterus after the expulsion of the child.

I should trespass too largely on your space to speak of the many other forms of Uterine Hæmorrhage, as *abortions*, *placenta previa*, *inversion &c.*, nor, indeed, is it necessary here, as the cases given are sufficient to illustrate my principles of treatment.

I well remember when first commencing the practice of Midwifery how puzzled I was, by the conflicting statements of authors, as to the conditions under which these remedies should be given, but extensive country practice has enabled me to decide the question for myself. There is nothing new in what I state, and I report them simply for the information of my junior professional brethren, trusting they may be saved some hours of anxiety, when called to such frightful scenes as these cases present. I had intended to have given here, the report of a case of complete "*Inversion of the Uterus*," and the manner in which I reduced it, but this article is already too long. On some future occasion, when the cacœthes scribendi seizes me, perhaps I may forward it, if deemed of sufficient interest for your Journal.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. I.—*The Physiological Anatomy and Physiology of Man*, by Robert B. Todd, M.D.,F.R.S., Fellow of the College of Physicians and Physician to King's College Hospital, and William Bowman, F.R.S., Fellow of the College of Surgeons, Surgeon to King's College Hospital, and the Royal London Ophthalmic Hospital, late Professor of Physiology, and General and Morbid Anatomy in King's College, London. Complete in one Volume, with 298 illustrations. Philadelphia, Blanchard & Lea; Montreal, B. Dawson; Quebec, Middleton & Dawson, 1857, pp. 926. Price 22s. 6d.

To decide upon the essentials necessary to constitute a "great work" in any department of Science, is by no means a facile task, since various standards of measurement may be chosen; and while all depend upon some peculiar feature for character, each will not appear in itself so perfect as to be faultless. A work may be great as a repository of pre-ascertained knowledge, or as an elucidation of matters formerly obscured —but in neither instance can the degree of greatness be a high one, nor may it be entitled to more merit than a production remarkable for laborious compilation or paraphrasical simplification. A work may also be great because of its richness in experimental inquiry, or of its evidence of well accredited observations,—and yet, as in the former cases, its value be not of much consideration, for it is derived merely from facts of substantiation, or simple accumulation. A work again may be great for its originality—for its displays of personal researches by the writer, or for its contradiction of antecedent opinions and theories,—and still, on such grounds alone, its estimation may be slight, as every addition may not lead to truth, and one form of error may be but supplanted by another. Furthermore, a work may be great at one period of the world's history, and a laudable index of intelligence for the time of its advent,—while at a more advanced day its beauties may have withered or grown seared. In which of these balances to weigh Todd and Bowman's Physiology we would not be much in doubt were a positive election necessary; but such a practice to us is objectionable, for it would, perhaps, be imputing to parts omitted, an approbation or an exemption from censure where neither was designed to be conveyed. Without pledging

ourselves to enter seriatim upon the various tests laid down—for such a course is unnecessary—we proceed with our examination of the work before us. And if, in its execution, we appear to be more particular than is our custom, our excuse must rest in the character of the production; for if this be not a foeman worthy of the critic's steel, all others must pass by unchallenged,—and in conformity with the well attested circumstance, that the nearer an effort aims to super-excellence, the more glaringly do its defects show forth, the present instance is not exceptional.

It is now 13 years since the publication of this work was begun; and the first parts have actually grown old before the progress of time and the march of intellect. This is an inevitable objection which weighs against all literary undertakings that are brought out piecemeal, or in parts, and should be sufficient to prevent the continuance of this style of publication. No treatise should be subscribed to, that is issued in this manner, unless guaranteed that the manuscript for the whole has been completed. Nothing is more tedious than to be expecting month after month, and year after year, as in this case, the arrival of the next part, and still to be disappointed. Many who see the first pages necessarily can never behold the last; and the student who began with Todd and Bowman when fresh, had to finish his studies out of a more complete work. Were the treatise one which was perfect and could not be improved, these very dilatory successions would be pardonable; but such can never apply to any book on so changing or extending a department as Physiology. Under the circumstances there was but one remedy for the superannuation of the first parts, and that was to revise them, and bring them up to the present state of science before publishing them with the last part as one volume. But this, we find, has not been done, and so the original condemnation lies unremoved. Abundance of proof might be shown of this, as will appear from the passages, that hereafter follow.

In the introduction, page 41, while discussing the theories of life, the authors remark:—

"It is clear that this *materia vitæ* cannot be as Mr. Abernethy suggested, Electricity, or anything akin to it. Electricity requires for its development the reciprocal action of different kinds of matter, and it is abundantly evolved in various animal processes as a necessary result of Chemical laws. If, therefore, organization and vital actions depended upon Electricity, this agent would at once be formed by, and direct the formation of each organism."

The precise sense of this quotation, which is far from lucid, needs some auxiliary explanation for its comprehension. The initial words, 'it is clear," do not denote that the sequence is a deduction, for the

anterior remarks are unconnected with the particular matter they refer to, but merely express a conviction on the mind of the writer, and one, unfortunately, which he fails in communicating to his readers, since, from what the latter has before them, by no means is it "clear" that the conclusion following is warranted. On the contrary, if he be more recently informed on the subject than the writers, it will at once be "clear" that the passage contains in itself materials of self-denial or destruction, and that taking the very ground adopted as the premises for inference, the very reverse conclusion must be arrived at, to that which was adopted years ago and was, perhaps, then warranted. Since the above extract was penned, it has been abundantly proved that *Electricity is formed by the organism*, so that upon the rule of admission, implied in its last sentence, which, however, we personally do not sanction, it would be inferred, *organization and vital action do depend upon Electricity*! for this, although an inverse, is virtually the same application of the original argument. We shall again refer to the relationship that subsists between electricity and the materia vitæ,—contenting ourselves here with rectifying a false accusation against the late Mr. Abernethy. It is not true, as is above declared, that this estimable gentleman, whose memory grateful science still adores, suggested that the materia vitæ was electricity. He was a believer in the doctrine that life consists in, or depends upon a power or principle that is superadded to organization, and was a close follower in the Hunterian belief, to which he was in no particular opposed. Of the exact purport of this hypothesis, Mr. Palmer (*Life and Lectures of John Hunter*) has given us an unmistakeable account. He tells us that the subject of his biography thus spoke :—

"It appears that the living principle cannot arise from the peculiar modification of matter, because the same modification exists where this principle is no more." * * * * * "Life then appears to be something superadded to this peculiar modification of matter."

And now to demonstrate the parity of Mr. Abernethy's sentiments, and to disprove the unfounded allegation of the authors, we quote from Mr. Macilwain's *Memoirs of John Abernethy* :—

"He (Mr. A.) concluding it as evident that some subtile, mobile, invisible substance seemed to pervade all nature, so it was not unreasonable to suppose that some similar substance or power pervaded animal bodies. He guarded himself, however, both in his first, and again in his second course of Lectures from being supposed to identify Life with Electricity, in a long paragraph especially devoted to that object."

The mistake of the writers becomes the more perverse from their representing Hunter's views, though curtly, yet correctly, and subsequently antagonizing against them those of Mr. A. which, as we have seen, were absolutely the same.

Todd and Bowman's work has no claim to the character of an Encyclopedia, and accordingly it is silent upon questions of historical interest. Some of these omissions concern matters of such fundamental importance in Physiology that unless we are to regard the expressed descriptions of the writers upon the histological topics as compensatory, a strong feeling of dissatisfaction cannot be suppressed. The cell theory of organization being the substratum of modern investigations, demands in every elaborate treatise on minute anatomy and function a full and particular consideration. In the work referred to, a comparatively concise demonstration is given of it, chiefly valuable because apparently the result of the authors, own examinations. These, however, have ended merely a corroboration of the prevalent views, and no notice is given to either the development of approximative or contradictory doctrines. The uninformed might justly suppose, from what they find in this volume, that the primary propounders of the cell theory were Schleiden and Schwann, and their researches into its nature had developed everything received and understood concerning it. How improper this would be is well shown in the *British and Foreign Medico Chirurgical Review*, for October, 1853. It is there asserted that Schleiden and Schwann added but little to the body of knowledge upon the ultimate structure of the tissues, before them collected by Lewenhoek, Malpighi, and their successors, by whom "the most important and characteristic features presented by the histological elements of plants and animals may be said to have been well made out." Equally remarkable, Wolff (*Theoria Generationis*) announciated a doctrine of organic development which Schleiden's and Schwann's closely resembles. It was, that

"Every organ is composed at first of a little mass of clear viscous nutritive fluid, which possesses no organization of any kind, but is at most composed of globules. In this semi-fluid mass cavities are now developed; these, if they remain rounded or polygonal become the subsequent cells—if they elongate the vessels, &c."

Wolff's tenets are the more interesting—and hence the non-recognition of them the more culpable—from the fact that they carry with them in their extensions, as explanations of function, an impress of greater probability than those of Schleiden and Schwann. The latter considered 1st. That cells were both anatomically and physiologically independent entities. 2nd. That they stood, in relation to the organizing or vital force, as causes, and not as effects. 3rd. That the organism, as a whole is a result of their consentaneous operation. Wolff, on the contrary, holds diametrically opposite opinions. He authorizes us to deny the first proposition; to reply to the second, that the cells are creations; and

to the third, that the entire system arises from the "differentiation" of a primarily homogeneous entity into cells. He has on his side the preponderating advantages which the commonly accepted theory of Epigenesis can award, as it is palpably the *fons et origo* of the propositions above stated. Whilst Schleiden and Schwann unfortunately would seem, from the work before quoted, to have been building upon misconceptions, Schleiden not having correct information upon the development or anatomy of plants, and Schwann reasoning falsely, though logically, from the former's data, in a comparison of vegetable with animal structures.

The account of the proximate principles is behind the age. Fibrin for example, is described, p. 54, as a uniform substance, and of unchanging character, from whatever source procured. When it is known to be a most protean substance, existing not only in the three separate and easily distinguished states of natural solution, of spontaneous coagulation and of artificial coagulation, but also varying in different classes of animals, and in dissimilar diseases;—while in every being, however conditioned, blood fibrin and muscle fibrin, or Syntonin (which name nowhere appears) are always unlike: nay more, it is believed to undergo constant changes in the circulation; in the lungs during respiration, it is converted by the inspired oxygen into tritoxid of protein, as which it exists till it passes through the systemic capillaries, when loosing oxygen it becomes a lesser oxide, a binoxide or suboxid of protein. This reduction again is thought to be interrupted by disease as inflammation, where Fibrin appears again as a peroxid of protein, an dis met with in the exudations under special peculiarities as coagulable lymph. We can hardly understand how a work on physiology can be deemed recent which takes no cognizance of these manifold deviations, but disposes of them indifferently under a single cloak of darkness.

A similar backwardness in scientific knowledge is exhibited under the head of Adipose tissue, concerning Fat. It is said that stearine, elaine and margarine

"Are regarded by modern Chemists as natural compounds of certain organic acids, with an organic base, to which the name of *glycerine* has been given, &c., p. 91."

We regret to say that *modern* chemists do not regard glycerin as a base, it having been determined that the superannuated conceit held years ago, is unfounded in truth, for glycerin, by association with fatty acids, i.e., by synthesis, will not form fat. Glycerin is probably a compound substance, and may be esteemed as a sesquihydrate of the oxid of lipyl.—Lipyl is an hypothetical radical, and has the same composition

that was formerly ascribed to glycerin. It forms salts like the oxide of ethyl, and in this class of agents, fat stands out prominently.

In several particulars of Micrology, the authors are at variance with the results arrived at by the later examinations of other observers. We do not, of course, desire it to be inferred that consequently their investigations are wrong when not substantiated, because those with whom they are at issue may be the parties in fallacy. But until a third independent inquirer settles the dispute, the statements of both antagonists must carry with them a certain portion of invalidation or detraction. The epithelial lining of the endocardium they describe as made up of two layers, from which arrangement Kolliker has dissented, he considering it to be constructed merely of a single stratum—the additional one described by our authors, being, he believes, referable to the commencement of a morbid sclerosis or pathological thickening of the endocardium. Again, they do not give to the anterior surface of the Iris the possession of an epithelium. They enlarge, p. 411, upon the lines seen here and described by the eminent Dr. Jacob, of Dublin, upon the vascular circle, the remains of the membrana pupillaris, and other matters of structural arrangement; but the epithelial cells which Kolliker contends are in this locality are disregarded, in fact Mr. Bowman, individually, has elsewhere denied their presence. The variance is the more striking, from the importance that Kolliker attaches to these agents, having given to them a partial share in the production of the varied colors of some irides. It is possible, however, that the difference may be due to the authors, considering the pigmentary cells as seated "in the substance of the iris rather than on its anterior surface," in which situation they describe them; while Kolliker has separated the most superficial or anterior layer of these for especial description or signalization. Again they say:—

"The structure of the pineal body is very imperfectly known." p. 253.

This is treating very cavalierly the researches of M. Faivre, published three years ago. This distinguished man then recognised three elements entering into its structure, viz., a fibro-vascular capsule, a soft parenchymatous matter, and an inorganic substance. The parenchymatous, which is the most distinctive, he found was not grey or vesicular neurine, as was thought, but a compound of "rounded or oval bodies, with clear outlined borders, and variable size; insoluble in water, nitric acid and alcohol," so that it appeared to be a *new* histological element. Once more, according to the examinations of Muller and others, a ciliated epithelium is found over the *whole* nasal mucous surface, even in the olfactory region on the cribriform plate, while according to our authors, this membrane possesses in the olfactory region a peculiar unciliated

cell layer. "The epithelium indeed here quite alters its character, being no longer ciliated," p. 394., as in the lower nasal region, where they admit to have seen it.

In the 9th chapter several pages are devoted to the subject of the nerve force, and its non-identity with the electrical established. The reasons, however, are not very conclusively stated, and the question of relationship between these forces is imperfectly debated. The vis nervosa cannot be electricity, because among other less striking objections,

1. "The firm application of a ligature to a nerve stops the propagation of the *nervous power* below the points of application, but not of *electricity*. The nervous trunk is as good a conductor of electricity after the application of the ligature as before it. 2nd. If a small piece of a nervous trunk be cut out, and be replaced by an electric conductor, electricity will still pass along the nerve, but no nervous force excited by stimulus above the section will be propagated through the conductor to the parts below." p. 223.

To these objections it may be remarked,—The first is not tenable, for only currents of high tension will pass through a tied nerve, while those of low tension are as surely stopped by the ligature as the vis nervosa. The second, however, cannot thus be disposed of; but it should be remembered that while it disproves a complete identity between the nerve and electrical forces, these powers may still possess a mutual relationship. An electric current passed through an iron wire wound around an iron bar will render the latter magnetic; yet this, although no proof of the oneness of electricity and magnetism, demonstrates there has been a relationship of cause and effect—the electricity produced the magnetism. And though not just so with electricity and the vis nervosa, the latter may yet in a manner be the educt of the former's agency. Another argument in favour of this view of the subject is, that electrical currents have never been detected in the nerves although they exist in most other structures, and their presence is connected with the integrity of the nerves. The late Dr. Golding Bird, in some admirable lectures on electricity, published in the *London Medical Gazette*, details a number of interesting experiments in confirmation of similar views, and concludes them by asking,

"May not one of the uses of the electricity so freely developed in the body, especially that existing in the muscles be to excite in the nervous cords the vis nervosa."* * * "And lastly, may not such vis nervosa again induce electric currents in any glandular or other organs just as magnetism in motion may re-excite electricity."

As we have before said, the work under review is not a fair expositor of the views of others. Of this we are again reminded in the article on the "development of bone." It is there stated—

"The minute history of the process by which temporary cartilage is converted into bone is of extreme interest. Very good descriptions of it have been given by Sharpey, Meischer and others, from which, however, it will be seen by the following account that we differ in some important particulars."

In a subject of so "extreme interest," a work of such high character as the present ought at least to have deigned to mention, even though succinctly, the descriptions of others, particularly of authors, whose names it has thought proper to signalize. By those who do not possess the separate accounts of "Sharpey, Meischer and others," in their production, "it will (*not*) be seen" in what particulars our writers differ from them, as no record is to be found of them.

Occasionally even greater eclipses will be found to obscure the mind of the reader. Opponent investigators are not only unmentioned in name, but even their doctrines passed over unspecified, a simple assurance being proffered of the sufficiency of the one adopted by the authors. Concluding the account of the description of the circulation are these words—

"We need not, therefore, have recourse to any other hypothesis to explain the rapid effects of certain poisons than that they enter the blood, and with it are whirled with immense velocity through the substance of the most vital organs."

The "therefore" is to them justified by an antecedent detail of the familiar researches of Valentin, Volkmann, Poiseuille and Blake, and to those who have studied the other side of the controversy, the total oblivion of its hypotheses, and their summary condemnation must appear simply unworthy of the writers because unjust.

The last parts of the work are, of course, much more modernized than the first half; and many of the exceptions taken against it do not apply to them. Thirteen years ago it was what they are now, so that they stand very high in the scientific mart as productions of great excellence, especially commendable for their being largely derived from laborious investigations, personally conducted by the authors themselves. Most of what they write about they have seen, and we are not disappointed in the expectation which arises under like circumstances, that while much will be determined in the way of collateral testimony, some differences from previous inquirers and some advances in the road of discovery will also occur. Mr. Bowman is most favorably known for, among other reasons, an expert histologist, and all who are familiar with his recondite and original investigations into the minute structural conformation of the eye, of the kidney, &c., will expect that this portion of the work will be most satisfactorily executed; not only brought up to the knowledge of the day of publication, but in some cases positively in progress beyond it. To this cause we attribute the deserved celebrity which "the physiological

anatomy and physiology of man" acquired as it, from time to time, came among us. Still the announcement of a novelty in science is but the harbinger of fresh pursuits by other hands and heads, it seems to incite to individual exertions, and so it happens in obedience to the precept just admitted, ere long that which was new, if not revived, is soon despoiled of its first charms by fresh facts, 'by differences and advances' in the results arrived at in the common field of inquiry. Dr. Todd is also well known as a diligent student of nature, and zealous cultivator of literature, whom we have before introduced to our readers. It were very desirable that the last parts could have appeared as favorable from other points of observation, as from that of investigation. We fear that like the former they are more or less amenable to the other charges made against them. Indeed some portions bear self-evident proof of haste in getting up, and of being imperfect digests of the information extant upon their proper subjects. The section on the spleen appears to us manifestly partial. Mr. H. Gray's recent inquiries are largely extracted, while those of Mr. Crisp, which we believe to be highly meritorious, are completely ignored. His researches into the anatomy and uses of this organ have been of the most extensive character, and as he differs from Mr. G. in many particulars, we think at least they should have been represented. The conclusion of the volume appears to have been entrusted to Dr. Beale, the authors finding from their incessant engagements, that without his aid, as they say in the preface, "we should not even yet have been released from our difficulties."

ART. II.—*On the Measle of the Pig; and on the wholesomeness, as food for man, of Measly Pork.* By Alexander Fleming, M.D., Professor of Materia Medica, Queen's University, Ireland. McGlashan & Gill, Dublin. From the Author.

Our readers need not be told, we conceive, that the so-called "measle" of the pig bears not the slightest analogy to the disease known by that name in man. It consists essentially in the presence of a parasitic animal, the *Cysticercus cellulosæ*, or bladder flesh-worm. In the pig it infests the cellular texture of the muscles in different parts of the body, but more particularly those of the tongue, neck and loins; it is also found in great numbers in the liver, and sometimes, though rarely, in the eyes. The same animal, under the name of "hydatid" is known to Pathologists by making its habitat of the human brain, striated muscles (including the heart,) areolar tissue, and chambers of the eye. Nor

is it the only parasite which preys on the living structures of proud man, for not fewer than fourteen well established species of entozoa alone have been found to infest the cavities and tissues of the human body. In this respect, however, he agrees with almost every known animal. From the smallest microscopic infusoria upwards through the whole range of animal life, each race appears to be infested with these parasites, which in most cases, are of a different species, and of a kind peculiar to each race. Indeed the entozoa themselves would seem to have other and minuter animals dwelling within, and living on their own tissues, thus realising Peter Pindar's famous couplet,—

> "These fleas have other fleas to bite 'em,
> And these fleas, fleas—*ad infinitum*."

There is no doubt in our mind that the different species of entozoa found in man are introduced from without, but how they obtain admission to the interior of the body, is a question still to be determined, and all that can be offered in solution, with our present knowledge on this subject, is plausible conjecture.

The *Cysticercus* belongs to the *Cystiform Sterelmintha* of Rudolphi. There are two other genera in the same family—*Echinococcus* and *Cœnurus*. The relations which are now recognized as existing between these entozooids and the *Cestoid* family of the class *Sterelmintha*, of the same *Helminthologist*, are exceedingly interesting and well deserving of our attentive consideration. The *Echinococcus* consists of a cyst, which is usually found enclosed by an adventitious cyst, formed by a condensation of the tissues of the organ in which it lies embedded. The outer tissues of the echinococcus are formed of coagulated albumen; the innermost layer, or "membrana propria" is very thin, and contains small and clear corpuscles of calcareous matter. On the exterior of the echinococcocyst there is no appendage whatever; but from the delicate internal membrane there project small pyriform buds

> "In which are developed one or more minute vesicular organisms, having a head armed with a circle of more or less bent spines, and in some species also four suckers. As their development advances, their nursing cysts become pedunculate, and finally burst or break off, liberating the organisms which then float or freely swim in the sero-albuminous fluid of the parent cyst."

The *Cœnurus cerebralis* is met with in the brains of sheep, giving rise to the fatal disease known by farmers under the name of the "staggers." It consists of a large cyst, the walls of which undergo contraction on the application of stimuli. To this cyst numerous heads are appended, which can be retracted within, or protruded without it. Each head is furnished with an apparatus of hooks and suctorious cavities, by means

of which they fasten themselves to the surrounding structure, and derive nourishment.

The *Cysticercus* differs from the *cœnurus*, in having but one head, connected with the cyst by means of an annulated neck, and in the circumstance that the calcereous corpuscles are aggregated in the neck, instead of being disseminated through the walls of the cyst, as occurs in that genus, and the echinococcus. The head is uncinated ; the spines, twenty or thirty in number, being arranged alternately in a double row, long and short. It is furnished with four suckers which are imperforate.

To the physician, the Tæniæ or Tape-worms are by far the most interesting of the entozoa, inasmuch as they come more frequently beneath his notice, and demand the active interference of his art. They form one genus of the family *Cestoidea*, which includes, as well, some species of the *Tetrarynchus*, the *Bothriocephalus* and *Caryophyllœus*.

The two worms found in the intestinal canal of man,—the *Tenia solium* and *Bothriocephalus latus*—may be regarded as the types of the two principal genera of the Cestoid entozoa.

The *Tenia Solium* varies greatly in length, sometimes measuring as much as thirty feet and upwards. Its breadth is about one fourth of a line at its anterior part, gradually increasing however, towards its posterior extremity. The body consists of a number of segments, united together and arranged in a linear series. The most anterior segments are very small, and extremely liable to break, or separate ; hence the difficulty which exists of obtaining the expulsion of the entire worm from the intestinal canal. The segments in the middle and posterior parts are well defined ; they are usually oblong in form, their length exceeding slightly their width, and the posterior border overlaps the succeeding joint. The head of the creature is small, generally somewhat of a square shape. In the centre of the head, on a kind of proboscis (rostellum,) there is a pore which has long been regarded as a mouth ; but Van Beneden has recently denied the existence of a central aperture. The rostellum is surrounded by a double circle of small recurved hooks, and behind these spines are placed four suckers, the object of this apparatus being the fixation of the animal to the walls of the intestine. In the interior of the body there is a double tube which extends on each side, along the whole length of the Tenia, communicating at the anterior part of each segment, or, according to Owen, near the posterior margin, by means of a cross canal.

These tubes have been, and are still regarded by many naturalists as an alimentary system which communicates with the central aperture or

mouth. There are two distinguished helminthologists who dissent from this opinion, and deny that they are alimentary canals. Van Beneden regards them as "secerning organs, the secretion of which is discharged from the terminal segment of the body through a *foramen caudale*." Von Siebold believes they form what he calls a "water-vascular system," a system of vessels long known to exist in the Annelids, Turbellaria and Rotifera. They always contain either water, or water mixed with excretions, and by the contraction of their walls, fluids are propelled along them. The motion of their contents, however, is greatly assisted by the action of vibratile cilia that have been observed in connection with the parietes of the canals at certain intervals. In addition to this system of vessels, but connected with them, Blanchard has figured a more superficial set, which, previously described by Eschricht and Leuckart, he succeeded in injecting. "The Tæniæ are androgynous, and each joint contains a complicated male and female apparatus, equal to the production of thousands of impregnated ova. The ova are developed in a large branched ovarium, occupying almost the whole space included by the nutrient canals, at least in the posterior segments, where it is very conspicuous from the amber colour of the more mature ova. The oviduct is continued from near the middle of the dendritic ovary to the marginal papilla, where it terminates by a small orifice, sometimes produced into a vulva, posterior to the pore of the male organs. The parts of the male apparatus which have at present been recognized, consist of a small pyriform vesicle, situated near the middle of the posterior margin of the segment; this, however, is most probably only a seminal vesicle, and not the testis. The vas deferens is continued from the vesicle with slight undulations, to the middle of the segment, where it bends upon itself at a right angle, and terminates at the generative pore; from which the *lemniscus*, or rudimental penis projects. The ova may be fecundated by the intromission of the *lemniscus* into the vulva before they escape."

What Professor Owen says, in the last sentence of the above quotation, may occur. Professor Van Beneden has actually witnessed in a specimen of the *Phyllobothrium lucæ*. While observing the animal, he saw the lemniscus unroll and pass immediately through the vulva, deeply into the vagina; peristaltic movements of the tube became perceptible, and spermatozoa were distinctly seen in the interior. After some time the penis was withdrawn, retracted into its pouch, and the parts returned to their previous condition. It is well, however, to remark, that Van Beneden is the only observer who has witnessed this process of self-impregnation.

A tenia, when it first emerges from the egg, consists merely of the first segment, that part which we have described as the *head*, with an

appended caudal extremity, containing scarcely any trace of internal organs. In this condition it is said to be in its *scolex* stage. It remains in this state for some time, but when fully formed, the tail-end enlarges, and the segments, each containing a distinct set of male and female generative organs, are formed. In the development of these parts, they are formed successively in front of each other, so that the most posterior of the series is the oldest. This, which is the condition in which the worm is expelled from the body, has received from Van Beneden the name of *Strobila*. When the segment has become matured, it is called the *Proglottis*. This drops off from the Strobile, and becomes an independent existence. It has no power, however, to develope a new head, and thus form a nutrient individual. Its own development increases ; it becomes oval in form, and may attain a size equal to that of the Strobile.

Now, our readers will remark, in the description we have given of the cystic worms, the close resemblance which they bear to the *head* of the Tenia, one of the cestoid family. Indeed, we may readily conceive the cysticercus to be a cestoid worm, with a short body dilated into a vesicle at its extremity. It is also to be noticed that the cystic worms have no trace of generative organs, and that in the higher animals they are found in the parenchymatous structures and beneath serous membranes ; whereas the cestoidea invariably occupy the intestinal canal, and are capable of evolving generative joints. These facts have led naturalists to the conclusion, that the echinococcus, cœnurus and cysticercus, are simply the cestoid entozoa in an imperfectly developed state. And the pains-taking investigations into the metamorphoses, and comparisons of the entozoa peculiar to the animals that prey on each other, made by Leukart, Von Siebold, Van Beneden, and others, place it almost beyond doubt. The same embryos may, according to the nidus which they attain, form either a cystic or a cestoid worm. If they enter the circulation and are carried to the brain or liver, they evolve respectively cœnuri or cysticerci ; but should they remain in the intestinal canal, their generative organs are developed, and they become teniæ or bothriocephali. In the *Eledone moscha'a*, a kind of cuttle fish, Siebold found, lying free in the cavity of the intestine, and contained in cysts in its walls, cestoid larvæ, that corresponded in nearly every respect with the *Bothriocephalus Auriculetus*, an entozoon infesting a carnivorous fish, the *Mustelus vulgaris*. This fish inhabited the same waters as the *Eledone Moschata*, and devoured cuttle-fishes.

" The common tape-worm of the cat, *Tenia crassicollis*, is remarkable for the disproportionate size of the head, the short and thick neck, the position of

the four suckers and the shape and number of the hooklets of the uncinated proboscis: all these peculiarities are repeated in the larval form of tape-worm, which is commonly developed in cysts in the liver of the mouse and rat, and which has already been described as the *cysticerus fasciolaris*. The warm blood and high organization of the small mammal in which that larva is developed, may well be regarded as favoring a further advance of that development than takes place in the encysted cestoid larvæ found in the cold-blooded invertebratæ; and accordingly we find, not only the uncinated proboscis and suckers of the tape-worm established, but also a lengthening and segmentation of the body in the so-called *cysticercus* of the rat, without, however, the development of the generative organs."—(*Owen's Lectures on the Invertebrate Animals, Page* 79.)

In the rabbit, Leukart has traced the passage of the embryos of tape-worm into the bloodvessels, and subsequently discovered cysticeri in the liver. According to Dr. Fleming, it has been proved by experiment that the so-called "measle" of the pig may be generated in the animal's muscles by feeding it with the *proglottides* of the *Tenia serrata*, a tape-worm infesting the intestines of the dog; and, *vice versa*, that the same tape-worm may be developed in the intestines of a dog fed with fresh measly pork. Hence the question as to the "wholesomeness, as food for man, of measly pork," becomes one of considerable importance. For it is reasonable to conclude, that if the cysticercus of the pig find its way into the human intestine, it is as likely to become the *Tenia solium*, as it is to form the *Tenia serrata* when introduced into the intestine of the dog. It has been observed, moreover, that tape-worm prevails extensively among communities addicted to the practice of consuming their meats raw, as the Abyssinians, the natives of Nordhausen, and the operatives of Lancashire.

"Küchenmeister," says Dr. Fleming, "has given a high degree of certainty to the connexion by experiment. He fed a condemned person with 'measles,' and found tape-worms in his body after execution. The parasites were given during the three days before death, in five doses of about a dozen each time, disguised in soup. Ten young tape-worms were found in the intestinal canal, attached to the mucous membrane in the usual way." (p.7)

When Pork that is but "slightly measled" is properly cured, or even thoroughly cooked, our author believes there is not the slightest danger to be apprehended from its ingestion; he sees *no valid reason for regarding "slightly measled" pork as unwholesome;* but it must be well cooked, and never eaten raw or underdone. We must confess, however, that no amount of curing or cooking would enable us to eat with satisfaction what we knew to be diseased pork, even though it were but *very slightly measled.*

III.—*A Manual of Examinations* upon Anatomy, Physiology, Surgery, Practiceof Medicine, Chemistry, Obstetries, Materia Medica, Pharmacy, Therapeutics. Especially designed for the Students of Medicine, to which is added a Medical Formulary. By J. L. Ludlow, A.M., M.D., Fellow of the College of Physicians, Philadelphia, &c., with 370 illustrations. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson. 1857. pp. 816. Price 12s. 6d.

To those in need of such a book we would recommend it as containing in a small space, upon little pages, and in big print, some of the more superficial straws that float upon the grinder's current. And we are much disappointed if the learner will not be disposed to cast all other books on physic to the dogs, and say to himself, herein will I rest myself,—here is my guide! my philosopher!! mine own familiar friend!!! Aye poor fool, and so you may—and ever after be the veriest medical dunce in Christendom.

IV.—*The Physician's Pocket Dose, and Symptom Book*:—Containing the doses and uses of all the principal articles of the Materia Medica, and chief officinal preparations; also table of weights and measures, rules to proportion the doses of medicine, common abbreviations used in writing prescriptions, table of poisons and antidotes, dietetic preparations, table of symptomatology, outlines of general pathology and therapeutics. By Joseph H. Wythes, A.M., M.D., Author of "The Microscopist," "Curiosities of the Microscope," &c., &c., second edition, 1857. (pp. 230.) Price 3s. 3d. Philadelphia:—Lindsay & Blakiston. Montreal:—B. Dawson.

The title page, which we have copied *in extenso*, fully informs the reader of the variety of subjects treated in this excellent pocket book. The practitioner will find it a very useful and convenient book for the office.

CLINICAL LECTURE.

On Rachitis. By M. Trousseau, Physician, at the Hotel-Dieu.

(*Medical Circular.*)

The bones are not all, in the same subject, disorganised in the same degree; for the alterations in some bones are observed to be in a very advanced stage, while other bones continue nearly in their natural state, or exhibit intermediary changes. These differences depend on the progress, which may be more or less rapid, of the osteomalacia, as well as on the circumstance of patients being carried off by intercurrent diseases, but the nature of the disease, in its regular march, is to invade the whole skeleton.

The pathognomonic lesion which first shows itself is the lessened consistency of the osseous tissue, which varies infinitely from the first degrees of abnormal elasticity to excessive softness, and thus flexibility is always at first seen united with friableness. The disease must, however, have reached a certain degree before the bone can be divided with the knife; the inorganic tissue is now in part persistent and preserves the form of the bone. As the softening becomes more considerable the bone becomes transformed into a reddish mass, bounded by a cartilaginous membrane, and may be bent and twisted in all directions; and the finger penetrates certain portions of is as easily as it would the spleen, liver, or hepatized lung. In this state it has been compared to the gingival tissue, to soft wax, and to callous flesh; the disease is now in its last degree. The bones, when softened, generally become very flexible, and bend the more they are subjected to pressure, great or oft repeated, and when the middle part of long bones is the part chiefly affected with softening. When you take and bend such bones, yet, when the pressure is removed, they return to their previous form; but should the pressure be persisted in, they break into a great number of fragments, unless the inorganic parts have disappeared, and the bone undergone a sort of carnification, in which case you may give any shape to the limb you please. The incurvations vary *ad infinitum*, according to the intensity of the disease, the muscular contractions that follow, the use patients make of their limbs, the position which they give them, the precautions they take to shield them with mechanical contrivances, &c.; and hence it often happens that bones which you can cut with a scalpel and without the least resistance, may show but little deflection, or none at all.

At an advanced age the incurvations are fewer and less decided. In a woman, sixty-three years of age, the softening was general, affecting

the ribs and sternum more especially; the ilia could be bended; the crest of the ilium was extremely soft, its outer lamina very thin, and perforated in several places, but the pelvis retained its normal dimensions. The same immunity is sometimes met with in young subjects.

The cause of the incurvations has by some been assigned to the slow action of the muscles. This action has at least been exaggerated: thus, in patients who have been obliged for years to keep in bed, without ever using their limbs, these last are sometimes found to present greater deviations than are seen in the upper extremities, so constantly made use of by the patients for ministering to their various wants. Autopsies, however, show that these are no less thoroughly affected than the other. In general there is nothing like regularity seen in the direction of the bending in the same bone.

One of the first lesions which we sometimes see is diminished length of the bone, which shrinks on itself and grows shorter without bending. This occurs especially in the short bones, such as the vertebræ, while the same thing does not take place in the long bones, at least in the beginning of the disease, though at a later period the shortening may become considerable. As to the enlargement of the epiphyses, it is only observed in subjects whose osseous system has not acquired its full development.

Fractures are so frequent in softening of the bones of adults, that scarcely has a single case been seen where they have not been found. The fractures are either complete or incomplete. In the flat bones they have the appearence of fissures or longitudinal rents that do not always affect both tables of the bone. In the long bones, they are generally transversal and the division is of the whole circumference of the diaphysis; or a part only of the circumference breaks, the softness of the osseous tissue allowing the convex-side of the curvature to yield without breaking. For the same reason, this softening of the compact substance does not leave in the fragments a degree of consistence sufficient to wound the periosteum which serves them as a sheath; hence for the most part, it maintains them in apposition. Many of them become consolidated. The fracture seems in many to give a new local impulse and sets up a secretion of calcareous matter while the softening proceeds with rapid strides in the other parts of the skeleton, and even in the other parts of the fractured bone. It is needless to say that the process of consolidation takes place with wonderful rapidity in the stage of reconstitution. In other cases you may, after several years, be unable to meet with any appearance of reorganisation; the bone looks as if it had been compressed with a tight band, or had been folded more or less imperfectly—an appearance that

may serve to distinguish fractures that had been produced before death, where there is an absorption of the fractured extremities, at the same time that there is thickening; while in the other case, they present numerous asperities, and the bones seem to have been torn rather than broken.

When consolidation takes place, it occurs in three different ways;—

1st. By an osseous ferrule, as in ordinary cases.

2nd. The callus is not perceptible exteriorly, but forms an osseous plug that obliterates more or less completely the medullary cavity, and serves as the medium of reunion between the two fragments.

3rd. Fractures are met with where reunion is produced by a very dense fibrous tissue, constituting an example of pseudarthrosis.

According to various authors, the periosteum is habitually thickened and vascular, of a more or less deep red colour, is very dense and easily detached, bringing with it the prolongations it had sent into the osseous tissue. It is not said to have been found thicker on the concave than on the convex side of the bone; and often it preserves its normal state. On removing the periosteum, there is found a layer of osseous tissue, extremely thin, unequal, and rugose, and riddled with imperceptibly small apertures, which may be rendered apparent by compressing the bone so as to make the contained fluid exude. There is sometimes found on the surface a thin layer that seems to be but newly formed. In the interior the cells are enlarged; the lamellæ of compact tissue are separated from each other; the more internal are disorganised and partially absorbed; the more external are attenuated to such a degree as to be transparent, through which the subjacent reticular tissue may be seen; and all the interstices are filled with a fluid, red, fatty, and pulpy, which may be squeezed out as from a sponge. The disappearance of the osseous tissue is more remarkable in the middle portion of the bone, the extremities, where, however, the tissue is loose and areolar, being altered in a less degree. The medullary canal is filled with a pulpy matter, mixed with osseous detritus, forming a pulp like lees of wine, by no means unlike the tissue of softened spleen, that may be carried away by pouring water over it, or by repeated washings. Sometimes this matter contains a sort of cysts or whitish nuclei, more or less homogeneous, and composed of colourless fibrine.

Prior to this disorganisation, so advanced, the medullary membrane is infiltrated with blood and thickened, and is easily detached from the osseous tissue, bringing with it vascular filaments. At a latter period it is still further changed, and cannot be distinguished from the extravasated blood contained in the medullary canal. This cavity has, at various points, been obliterated by plugs of the callus of old fractures. In other

instances it is almost entirely wanting, the bone being transformed into a tissue with very fine meshes, similar to those of a fine sponge. When the calcareous substance has been absorbed, and the bone has become so membranous as to form folds in several directions, the pulpy matter may push outward some portions of the envelope which thicken and thus assume the appearance of tumours which are sometimes of a cartilaginous firmness.

In the flat bones, the two tables recede from each other, become thin, and are sometimes lost in the diploe, which is transformed into spongy tissue the whole length of the bone, which appears tumid. The cells of the diploe, in other cases, are not very much enlarged. The short bones, when softened—a rare circumstance—show the areolar substance greatly rarified.

THERAPEUTICAL RECORD.

Morphia Suppositories. Introduced by Prof. Simpson as more efficient than the soap and opium. Duncan and Flockhart of Edinburgh make them thus :—Take acet. morph. 6 grs. ; sugar of milk 1 drachm ; simple cerate ½ a drachm, or as much as may be sufficient to make a proper consistence and divide the mass into 12 suppositories. Then dip each into the following mixture to form a coating :—Make of white wax 1 part, lead plaster 2 parts, melt together. Melt these and dip the suppositories held by a needle into the mixture. Immediately on taking out dip into cold water to harden it before it loses its shape.

Ammonio-Tartrate of Iron. Dr. Gries of Reading, Pa., highly recommends this salt in erysipelas and low fever. He gives it in 2 to 4 gr. doses every 3 or 4 hours, dissolved in some aromatic water.

Asclepias Syriaca. Dr. Cauthorn of Richmond, Va., speaks favorably of this agent as an anti-periodic in the treatment of intermittents. It is so bitter it should be given in pills; 4 to 6 grs. of the powdered bark may be given every 2 or 3 hours during the apyrexia.

Pæonia Officinalis. The root possesses peculiar anodyne or strong nervine powers, and is useful in the convulsions of children. Take ½ a teaspoonful of the powder, scald it and sweeten, and give the whole at once to a child 3 or 5 years old *ter die.*

Iodid Cadmium. This new preparation of Iodine is coming into general use in Hospital practice, in England, in place of iodid of lead and iodid of zinc, as it makes a white ointment, more effectual in dispelling glandular enlargements and not so like paint as iod. of lead.

Jelly of Iceland Moss and Cod Liver Oil. M. Sauvan, of Montpellier, prepares this new combination, thus :—Jelly of Iceland Moss 32 drs., gelatine 4 scruples. Cyanhydrated Cod Liver Oil, (with 2 drops of essence of bitter Almonds) 32 drs. melt the jelly and pour it into the vessel into which it is to be kept, add then the Cod Liver Oil; stir with a spatula until the mixture is homogeneous and until the jelly begins to form. Dose, 2 or 3 tablespoonfuls a day.

Zinc and Hyoscyamus. A combination of these two medicines has been most avorably spoken of as affording an excellent means of checking the colliquative sweats of phthisis. Either the oxide or the sulphate in doses of gr. i. to iij. with gr. vj. ext. Hyoscy, made into two pills may be taken at bed-time.

Glycerin and Borax. This salt dissolves in Glycerin and the solution may be diluted with water. The following mixture may be used:—Borax, ten grains; Glycerin, one drachm; water, two ounces. An analagous combination has been used with great good in fissures of the tongue.

PERISCOPE.

Absorption of Medicinal Substances Introduced as Enemata into the Large Intestine.—M. Briquet read a memoir on this subject, before the Academy of Medicine, on the 30th of December last, principally in reference to quinia and its salts. The author draws the following conclusions:

"1. The fluid of which the enemata consists may readily enough be carried as far as the cœcum, and consequently be applied to an extensive absorbent surface.

"2. The mucous membrane of the large intestine, and the liquids which bathe its surface, exert no chemical influences over the substances introduced into this cavity, in which nothing is absorbed but what was previously in solution.

"3. When we administer by injection, per anum, salts of quinine, in solution, in a dose less than fifteen grains, a little more than a third of this quantity has disappeared, and has consequently been absorbed.

"4. When doses larger than fifteen grains are administered, they are l a lly received, and not more than a fifth, or even a sixth of the quantity is absorbed.

"5. At whatever dose we give the sulphate of quinine [by injection?] cerebral symptoms are, in common, produced only very slowly, and in minor degree.

"6. No traces of absorption are perceived before an hour has elapsed after the administration of the enema, and at this time but an inconsiderable quantity has been thus disposed of.

"7. The duration of the absorbing process is, in general, rather short, and seldom extends beyond two or three days at most.

"8. The absorption of the alkaloids of cinchona is not sensibly affected by various degrees of dilution, within, be it understood, certain limits, by the greater or less viscosity of the liquid, nor, finally, by the addition of the salts of morphia.

"9. Young people absorb better than adults; old persons of either sex absorb very imperfectly.

10. The alkaloids of cinchona, administered by enema, in doses less than fifteen grains, may produce by this means all the good effects to be expected from the alkaloids given in small doses by the mouth, and may very well be substituted for the latter.

"11. The case is different with large doses; which are never absorbed in sufficient quantity to produce energetic stupefying effects [quininism ?].

"12. In general, larger doses than thirty grains of sulphate of quinine are not borne by the large intestine.

"These conclusions are applicable in a greater or less degree to the various substances employed as an enemata."—*Rev. de Therap. Med. Chirurg.*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

The Indian Herb Doctor.—A trial was lately prosecuted in Toronto against one F. Tumblety, who gives himself the designation above specified, for practising Medicine in Toronto, C. W., without a license. The case appears to have been clearly made out against the defendant, and he was held over to appear at the Assizes upon a bail at two securities in the sum of £50 each, and himself in £100. Under the provisions of a statute passed in the 8th year of the reign of George the Fourth, it is enacted that any practitioner unlicensed by the Medical Board in Upper Canada is punishable by a fine of £25, or imprisonment for 6 months. There are, however, such impediments in the way of the execution of this law, that quacks of every kind run riot throughout the land. It were much to be desired that these harpies who prey on human credulity and ignorance, could be summarily ejected. If each were treated like the present one, some hope might be held that the Augean stables would sooner or later be cleansed. As for trusting to the verdict of a discerning public that were a very vain expectation, a deplorable inutility which the experience of all ages testifies. The public should not be tempted, and temptation can only be avoided either by a total change in the corrupt nature of the tempter, or by making him honest through a salutary fear of the laws of

his country. One would think that the very circumstances of an impostor would be sufficient in themselves to reveal his real character. But sick people give themselves very little trouble in inquiring into circumstances, or weighing their probabilities. If they have a disease which has become a part of their existence, they will readily fly to any pretender who professes to tell the *cause* of their malady, and promises *a cure* for it. All this is abundantly testified in the case of F. Tumblety. He is a man with a long advertisement in a Toronto newspaper headed by an ugly looking dwarf, he professes to have a remedy for the most incurable and most incongruous maladies; he calls himself by a title which intimates that he got his medical learning from a race of unlearned savages; he deals, by his own account, in maladies which are known to the educated in native drugs; he confines himself professedly to means which at least as intelligent persons have rejected for their inefficiency; he makes every case out to be very bad,—his professions of cure are boundless; and he requires of his patients very large fees, greater and on different terms to those of regular physicians. His directions are common-place and illiterate,—his education neglected,—his information low,—his tastes vulgar,—and his views on things in general paltry or unsound. The plaintiff's evidence we extract as follows:—

"Thomas Mullen was called and deposed:—About the 8th or 9th February last, being then suffering from general debility, loss of memory, &c. I went to Dr. Tumblety. On speaking to him, he said I was in a bad condition. I asked the Doctor if he could do anything for me. The Doctor replied, I can cure you. He said, that as I was a servant, he would only charge me $20, and $10 when I was cured, adding that, as I was poor, he would cure me for that sum. I asked if he had any doubt of being able to cure me, to which he rejoined,—'Do, my good boy. Do you think I would take your money, if I could not cure you?' I then gave him two ten dollar bills, and he gave me a bottle of medicine, and a box of pills, with a printed paper of instructions as to diet, &c. Dr. Tumblety told me to call again in a week, and I did so, and he gave me more medicine. I continued to return to him weekly for about seven weeks, to get fresh medicines."

McGill College—Prizes for 1857.—The annual Prizes in Medicine were adjudged at the termination of the past session to the undermentioned gentlemen, and awarded to them during the ceremony of Graduation:—

For Thesis.—Messrs. L. R. Church and D. T. Robertson. This prize was divided between these competitors, as it was impossible to distinguish between the respective merits of their separate productions.

For Final Examination.—Mr. L. R. Church.

For Primary Examination.—Mr. Jas. Kerr.

The prizes last named are given to the Students who exhibit most ability in answering questions upon the various branches, senior or junior. The examinations are oral.

Medical Graduates, McGill College, 1857.—The following is a list of the Graduates in Medicine, for the current year. They received their degrees in the early part of May :—

Alexander D. Stevens, Dunham, C. E.—On the Nature and Responsibilities of the Medical Profession.

Etienne R E. Riel, Ottawa City, C. E.—Lyssa Canina.

Levi R. Church, Aylmer, C. E.—Arterial Hœmorrhage.

John Aylen, Aylmer, C. E.—Tuberculosis

A. C. E. Picault, Montreal, C. E.—Fracture of the Neck of the Thigh Bone.

Richard Whiteford, Three Rivers, C. E.—Corrosive Sublimate.

Henry Shoebottom, London, C. W.—Arterial Hœmorrhage.

Robert N. Shaver, Dickinson's Landing, C. W.—Abortion.

Robert Howden, Montreal, C. E.—Thoracic Aneurism.

John McMillan, London, C. W.—Inflammation of the Veins.

D. Thomas Robertson, Quebec, C. E.—Tetanus.

Andrew A. Boylan, Montreal, C. E.—Acute Articular Rheumatism.

William Wilson, Chambly, C. E.—Administration of Chloroform.

Gordon James Emery, Bowmanville, C. W.—Inflammation of the Veins.

Primary Examinations. At the close of the Session, 1856-7, the Gentlemen whose names are subscribed passed successfully upon the primary branches, being their first examination for the degree of Doctor of Medicine, in the University of McGill College.

Mr. James Kerr,	Mr. T Cunynghame,
" Wm. Harkin,	" Alex. Reid,
" Geo. Pattee,	" Timothy English,
" Patk. O'Leary,	" Jas. McGarry,
" Theod. Robitaille,	" Jas. S. Duncan,

and Mr. W. H. Taylor.

Materia Medica—Prize 1857.—The Professor of this department in McGill College offers annually a prize for the best essay on any subject embraced within the sphere of his lectures. The competitors were this year five in number ; and as the most meritorious, the prize was given to Mr. Alex. Reid, of London, C.W. His production being one of

great excellence on account of its original inquiries and experimental researches. The most interesting or novel portions will be selected for publication in our pages. Its subject is "Strychnia."

COLLEGE OF PHYSICIANS AND SURGEONS, C. E.

Montreal, 12*th May*, 1857.

The Semi-Annual Meeting of the Board of Governors of the College of Physicians and Surgeons of Lower Canada, was held this day, when were present Drs. Fremont, Russell, Sewell, Lindsay, Jackson, Marsden, Robitaille, Boudreau, Marmette, Badeau, Turcotte, Smallwood, Chamberlin, Brigham, Sabourin, Weilbrenner, Fowler, Foster, Glines, Munro, Bibaud, Hall, Fraser, Boyer, Jones, Peltier.

Dr. Fremont, the President of the College, in the Chair.

The Secretary read the minutes of the last Semi-Annual Meeting, held in Quebec in October last, which were approved.

The President informed the Board that he had not received as yet any information from the Government concerning certain amendments to the present bye-laws.

From a few remarks made by the Secretary, it was unanimously resolved that the Board should proceed with the examinations, before attending to other business of the Meeting. Dr. Mortimer, a navy surgeon for the past fifty years, claimed, upon certificates from Sir W. Burnett, proving that he was really a navy surgeon, to be examined to obtain his license from the Board. After some discussion, it was decided to comply with his request.

The following gentlemen, with Degrees from the Medical Faculty of McGill College, after having taken the oath, were granted their License:

Messrs. Whiteford, Aylen, Shoebottom, Robertson, Howden, Shaver, Emery, Riel, Church, Boylan, Picault, Wilson.

Mr. Stanton received his License as Apothecary, after a satisfactory examination.

The following received their License after very creditable examinations:—

Messrs. Mortimer, Ricard, O'Leary, Poisson, Bacon.

The following, after having undergone their preliminary examinations, were admitted to the study of Medicine:—

Messrs. Guertin, Gravel, Gaucher, Grenier, Derome, St. Cyr, Desjardins, Vaine, Charlebois, Lafontaine, Taschereau, Lindsay.

The examinations being over, two lenghty Reports from the Montreal and Quebec Committees were read, after which it was moved by Dr. Russell, and seconded by Dr. Landry:—

"That the Reports from the Committees appointed for the cities of Quebec and Montreal, respectively, be received, and that the thanks of the Board be given to the Committees for the care and trouble they have taken in preparing these voluminous and comprehensive Reports.

The Meeting then adjourned.

HECTOR PELTIER, M.D., Edin.,

Secretary for the district of Montreal.

Jeremie's Sedative.—We have lately been favoured with a sample of "Jeremie's Sedative Solution of Opium and anti-spasmodic." This preparation, made after a patented process, has acquired much celebrity as an Opiate. Its chief advantages are alleged to be "its *peculiar* freedom from the noxious properties of Opium, it being found available in cases where other forms have been inadmissable." Having been prepared at Patna, it was extensively tried in the East Indies, and was subsequently introduced into Great Britain and Ireland; and the Physicians who have there employed it speak of it as a most valuable remedy. Hitherto its high price has opposed its introduction to common use in Canada, this impediment has, however, now been removed, and the article may be procured in this city at about one-third its ordinary cost. We have given it to some of our patients, and have had no reason to question the propriety of the statements that have been made of its excellence. As to strength, the printed accounts are rather conflicting—according to one writer, it is three times as strong as laudanum; according to another, it is of about the same strength. The latter we believe to be nearer the truth. The dose marked is from 10 to 40 drops. On one occasion twenty minims destroyed the life of an aged female. It may be purchased from either Mr. S. J. Lyman, Place d'Armes, or Mr. Beers, of the Medical Hall.

The Antiphlogistic Specific.—Some time ago our attention was kindly directed to a statement of the discovery of a new salt which was reputed to be a specific for all cases of inflammation indiscriminately. Being too old to be caught by such chaff, we thought no more of the imposing claim. It was roundly asserted that with a few atoms of a pleasant salt, inflammation might be cut short; acute or chronic only became a question of numbers, the acute might, in the face of great improbabilities, demand a second dose, the chronic hardly half a dozen. Bleeding arms, shaking teeth, drowsy brains, deadly prostrations, and depurative leakings, were henceforth to be no longer the means by which welcome Hygiea was to descend antiphlogistically to the inflamed sufferer,

like Othello's, their occupation's gone. No more was the pathologist to allay his morbid appetite with the thousand and one deadly victories that the once triumphant foe anywhere and everywhere achieved. The lecturer could now replace his multitudinous and inexhaustible discourses by a few happy words, sententious and practical, and afford a profitable airing to the non-phlogistic specialities which the one absorbing idea or act had always asphyxiated. In short the lofty castle of cards, we were hitherto heaping up, now disappeared before the mystic little powder of the undoubted magician. The salt was a secret, an American practitioner, a Dr. Coggswell, made it, and supplied it at two dollars a box,—enough to cure the inflammatory in a battalion of the sick. But alas, the ruthless analyst, has changed the spirit of the dream. Our attention is again directed to the subject. The salt has been proved to be bicarbonate of potass. Can it be so? or may not the same mysticism before claimed for its nature have given its solid outward particles the characters of the bicarbonate, to deceive the daring mind of the presumptuous investigator? Let Dr. Coggswell answer,—our part is done.

Lectures on Botany.—A short course of lectures will be delivered during the ensuing session, by Dr. Barnston of this city, as lecturer on this branch, in connection with the course of Natural History, McGill College, by Mr. Principal Dawson. Hereafter, pupils beginning their studies, we believe, after May 1857, will be required to attend one course of Botany before graduating. They, however, will not be required to submit to any examination upon this branch. The examinations for M.D. will remain as they are, and be without extension. The fee for attendance will be as for the Natural History course.

LONDON CORRESPONDENCE.

1st May, 1857.

No. II.

For the fifth time in my life I saw amputation at the hip joint performed on the 28th March, by Mr. Stanley, at Bartholomew's Hospital, before an immense number of anxious spectators. It was not done in the usual brilliant manner by transfixion, which particularly struck my eye years before, when performed on the dead body during surgical demonstrations by my old teacher and friend Professor Campbell, of McGill College. The nature of the disease precluded transfixion in the present instance, as a large medullary tumour occupied the whole upper

half of the thigh and terribly encroached upon the groin, so much so, as to render the operation one rather of dissection to accomplish disarticulation, than a regular amputation. An idea will best be formed of the whole proceeding when it is stated that 15 minutes was the time, before the limb was completely severed. And then, oh! what a frightful surface was exposed, with not much to boast of in the way of flaps, being for the most part skin. When a first year's pupil, I remember well the right leg fell to my share to dissect, it was of course attached to the body, and when the superficial muscles anteriorly were roughly gone over, I took it into my head to remove the limb altogether, and did so in a most barbarous manner, severely soliliquizing with myself afterwards at such wanton destruction. The appearance of the two cases strongly resembled one another; and I felt that in Mr. Stanley's case, the stump —if it may be so called—was very different from what I had before seen in Mr. Erichsen, Mr. Curling, Mr. Hancock, and Mr. Nelaton's cases. The poor fellow died within 2 hours after from secondary hemorrhage. To be sure the operation was quite justifiable, but the patient might have survived some months longer without it, but that of course, as your intelligent readers are aware is a secondary consideration altogether.

An operation not the less striking, but which more interested me was lithotomy by Mr. Fergusson, on the 11th April, upon an old man aged 59, from whom 2 calculi were removed, and at the same time the middle lobe of the prostate gland which projected upwards and backwards like a valve, the size of a walnut was excised, being caught hold of with a pair of stone forceps, and cut off with a pointed bistoury. This is a thing not before attempted by any man, and it is only such a mind as that of the operator which could suddenly conceive it. However, it took my fancy so much, as illustrating a point in relation to the treatment of an enlarged middle lobe of the prostate, as to draw forth from me a short communication, which appeared in the Lancet of the 18th of April, the same number which contained a report of Mr. Fergusson's case in the "Hospital Mirror" of that Journal. The title of my note was "Cannot enlargement of the middle lobe of the Prostate Gland be removed by the lateral operation of lithotomy?"

At this moment the injection of Iodine into Ovarian Tumours, bursal cavities, sacs of cold abscesses, synovial cavities, &c, is receiving a fair trial, and so far as I have seen, promises to be pretty successful. I saw Mr. Erichsen inject a very large hydrocele the other day with pure strong tincture of iodine, with success, also an ovarian cyst, but the patient was not a suitable one for it. A case of Mr. Baker Brown's, at St. Mary's Hospital, struck me forcibly: 6 ounces of strong tincture of

Iodine, (Ed. Ph.) were carefully injected into an ovarian cyst in a healthy female, after being first tapped, and allowed to remain in. In 5 minutes—Iodism set in—the saliva tasted of Iodine, and in half an hour the urine and other secretions were strongly impregnated with it She had to be supported with wine and brandy for 24 hours, and a radical cure was accomplished. I have seen other cases thus treated, but if success is to be expected, the pure strong tincture of Iodine must be used, *undiluted with water*, and allowed to remain.

The Iodide of Ammonium—a chemical much used in photography—has been introduced into Therapeutics, by my friend Dr. B. W. Richardson, the Editor of the Quarterly Journal of Public Health. It is quite soluble in water, not unpleasant to the taste, and a little more pungent than Iodide of Potassium. It is given in doses of from 1 to 3 grains for an adult. It possesses absolutely marvellous powers in dispelling strumous enlargements, much more rapidly than its sister salt. It has been found of great value by Dr. Richardson, in secondary syphilis, chronic rheumatism, the primary stage of Phthisis, and various forms of scrofula. It may be used also externally in the form of a liniment with Glycerine or Soap Liniment as a menstruum. It is thus easily absorbed. In this manner (a drachm to the ounce of glycerine,) he treats enlarged tonsils in children, applying it by means of a camel hair brush every night. From what I have seen and heard of this new salt from my friend, and with the experience I am already gaining of its value myself in public and private practice, I do not hesitate to prophesy the most valuable and important results from its use, and I lose no time in drawing your readers attention to it. There has been a death lately from the administration of Amylene, but there was found hypertrophy of the left ventricle at the autopsy, and we must expect accidents of this kind to occur from almost any anaesthetic, when such diseased conditions are present. Dr. Snow gave it himself in this instance, and has used it upwards of 150 times, without the least bad effect. Sulphuric ether, is perhaps the safest thing to use after all.

You will have perceived by the papers the announcement of the death of the well known and justly celebrated Dr. Scoresby, at his residence at Torquay, on the 21st March. He was a corresponding member of the Natural History Society of Montreal, and was an old friend and acquaintance of the Society's late Secretary, Mr. Dutton, who has often discoursed upon the Doctor's whaling voyages, which were published in 1820, in his account of "The Arctic Regions," which has proved to every Naturalist both old and young, one of the most interesting narratives of maritime adventure ever written. I think Mr. Dutton is called

upon, to bring a short sketch of Dr. Scoresby's eventful life, before the Natural History Society, and which ought to be published. I trust that this may catch Mr. Dutton's eye.

I have another death to record, but with feelings very different from those which prompted me to do so in Dr. Scoresby's case. It is the death not of an individual, but of one of the instruments of a system, which is fast on the wane, and will be shortly reckoned as one of the "strange things that were." The London Homœpathic Hospital, the last hospital devoted to this delusion in London has closed its doors. The Lancet says, while recording the melancholy event, that "Like all quackeries, it has had its day: like all quackeries it has been supported, by the shallow, weak, and credulous on the one side, and the charlatan and the rogue on the other. Such alliances are invariably broken when either the eyes of the one are opened, or the capacity of the other is not gratified." Poor Lord Robert Grosvenor, the great champion of Homœopathy has confessed himself diddled, and declares he has been humbugged from first to last. He now employs a regular genuine allopathic practitioner. One Sunday when a passenger on the South Eastern Railway, who should happen to be in the same Car with me, but Dr. Rosenstein, who practised homœopathy in Montreal for some years. He did not know me. I watched him for some time and found he was in an advanced stage of phthisis, the mere wreck of what he once was; his young wife and mother in law were in the car with him. After a while I spake a word into his left ear, which made him stir up, he nearly fainted with delight. I parted from him shortly after. A few days later a letter reached me from Woolwich, where he is settled, telling me he could not have been better pleased at meeting an angel than having seen me, and after entering into a few details about his history since leaving Montreal, the letter concluded by asking for a loan of the needful. It was quite clear, he too had found homœopathy a delusion as many others had done before him.

In one of my previous letters, I recounted an accident of a very fearful character in St. Katherine's Dock, in which the abdominal and thoracic viscera were forced out, with the heart lying exposed on the outer surface of the abdomen. (Page 238 of Vol. 4.) It fell to my lot on 23d March, to witness a most horrible scene at Charing-Cross, which was the running over of an old gentleman who had been waiting for a Clapham omnibus. He was making an attempt to cross the road in front of a Westminster omnibus, immediately in front of the horses which at that moment started to go down the incline; he was knocked down before he knew what he was about, and run over as quickly as it

takes me to write the few words about it. Both wheels passed over his body, completely rupturing the walls of the abdomen and squeezing out his bowels. The shocking spectacle was one which produced a very sickening feel in every one who witnessed it. It is needless to say life was immediately extinct. No blame is attachable to the driver. People are very frequently run over at the bottom of Agar Street in the Strand, where no less than five different streets meet, and the patients are generally taken into Charing-Cross Hospital.

My friend Mr. Erichsen of University College was telling me a few days ago, he had received an invitation to attend the meeting of the American Association for the advancement of Science, which is to be held at Montreal. He is much flattered by the compliment but will not be able to go. His work on Surgery is out of print and a new edition, of which he is at this moment correcting the proofs, will be out before October. It will be in 2 handsome volumes, with 140 additional woodcuts. Both he and his valuable book, are well known to all the McGillites who come over here, at least those whom I chance to meet. I introduced Dr. Walter J. Henry to him, who was much taken with the Professor. If you turn out many such men as Dr. Henry from McGill College, you need not be ashamed to send them to any part of the globe. From the opportunities I had of forming an opinion, I was much pleased with him indeed, and I will take any amount of trouble to show such men as he, or Dr. John and James Stevenson what medical life is in London. I very frequently meet another graduate of the same College, and lately have been almost daily in his company, I allude to Dr. David D. Logan, formerly of Montreal, who resides at Cheltenham, and is practising there as a Physician. He, Dr. Baker of Dawlish and myself are the only 3 I believe in England who rejoice in the terms McGillite, but I am glad to say not of the recreant class, an example of which you have shown up in your March number.

In concluding, I would recommend your employing stout, and at the same time thin, brown paper, to envelope the numbers of your Journal, for I believe many of them go astray, owing to the lacerable nature of the kind of paper you employ, and it is really a disappointment to find sometimes odd numbers not making their appearance.

G.

MEDICAL NEWS.

A Physician in New York was lately robbed by a woman suddenly stepping up to him, and before he was hardly aware of her presence, she snatched his gold spectacles from his nose. The Dr. was too much astonished to give any alarm and the woman escaped.

THE

MEDICAL CHRONICLE.

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ORIGINAL COMMUNICATIONS.

ART. IV.—*On Gangrene of the Lungs.* Delivered at General Hospital, January, 1857. By R. P. HOWARD, M.D., &c., Professor Clinical Medicine, and Medical Jurisprudence, McGill College, &c., &c.

GENTLEMEN,—In to-day's lecture your attention will be directed to the peculiarities presented by the case of Doyle who has been under your observation now for over two months, and whose chest you have frequently examined under my supervision. Before making any comments, let me read the notes taken by Mr. Levi Church.*

November 6th, 1856, John Doyle, æt. 36, laborer, admitted into Montreal General Hospital, on 17th Oct., 1856, under Dr. Wright, for cough, &c., who was succeeded by Dr. Howard on the 1st November, states that he had always enjoyed good health until about 7 months ago, when he caught a severe cold, while driving during a rain-storm, a distance of 8 or 9 miles in an open waggon, in Western Canada. He did not remove his wet clothes till bed time, and the next day he felt oppressed and heavy; this was succeeded by some fever and prostration, and about the fourth day by copious expectoration of a horribly offensive character. Though feeling very ill he endeavoured to keep out of bed, as he was in quest of employment, and about the eighth or ninth day he actually attempted to work one day, but was obliged by indisposition to desist. The cough,

* I regret to say the original notes have been mislaid by Dr. Church, to whom they were lent to be copied, and I now write the facts from memory.

fœtid expectoration and general prostration continued, and about a week later an abundant spitting of blood was superadded. This hœmorrhage induced him to enter the Toronto hospital, where it, for several weeks, resisted all treatment; discouraged and alarmed he left the institution clandestinely, and placed himself under the care of a private physician. After it had continued daily for about 6 weeks, it at last ceased. His health improved somewhat about two months later, but his cough and offensive expectoration remained *in statu quo*. Somewhere about this period he came to Montreal, entered the St. Patrick's Hospital of this city, under the care of Dr. Macdonnell, but not deriving the benefit he had anticipated, and his general health again beginning to suffer very much, he left that asylum for his present one.

Present condition. Aspect of confirmed ill-health, sallow complexion; wan, not very much emaciated, though much lighter than when in health; frequent soft cough, occasionally paroxysmal; copious, diffluent, dirty-greenish-yellow, horribly fœtid, purulent expectoration; breath has same offensive odour. Deficient expansion of left side chest at base, tested by eye, and by Quain's Stethometer. No flattening nor bulging of any region. Percussion note clear over entire chest except at lower half of left side, and this dull region very resisting to the finger, and not altered in its boundaries by change of posture. Respiratory murmur exaggerated, but not otherwise modified over entire right lung, and upper portion of left is scarcely audible in left mammary region, and quite inaudible in left lateral, dorsal and lower half lower scapular regions; mucous râle audible at several points in this dull region, becoming almost gurgling at inferior angle of scapula where blowing respiration with pectoriloquy are heard; vocal fremitus not obliterated over dull region. Hearts sound, rythm and situation normal. No increased hepatic nor splenic dullness.

A sedative balsamic cough mixture, and cod liver oil were prescribed, and the patient's weight taken. Early in December the fœtor and profuse expectoration continuing kreasote-inhalations were added to the treatment and towards the end of the month he had gained perceptibly and considerably in flesh and strength. About this period he had a relapse, with hœmoptysis, prostration and profuse expectoration of intensely fœtid smell. The physical signs of a cavity in the postero-lateral aspect of lower lobe were very obvious, in the form of cavernous respiration and voice, cavernous whisper and gurgling. He again rallied and improved a little, until the 25th January, when a profuse hœmoptysis occurred, so that a large chamber utensil was two-thirds filled with florid red blood and pus, having an extremely fœtid odour. Notwithstanding the administration

of free doses of gallic acid, acetate lead and digitalis, the hœmoptysis recurred on the 26th, and this morning, the 27th, it is not arrested. He is now pallid, extremely weak, scarcely able to speak aloud, and every now and then expectorates a mouthful of blood and matter. The fœtor is, if possible, more disgusting than ever, and the quantity of mixed blood and greenish-yellow diffluent matter expectorated since yesterday is exceedingly great. Omit gallic acid, &c. for following :—℞ ol. terebinth : ʒ vi. tr. opii. mlxxx. syrupi. ℥ 1 mucilag, ℥ v. M. coch. med. 2nda. q. hora sumat.

The question which naturally occurs to one's mind, when investigating the nature of the above case, is, what is the cause of the horribly fœtid odour of the patient's breath and expectoration ? The affection in which this combination of fœtid breath and expectoration, with cough, and physical signs of diseased lungs obtains, is pre-eminently pulmonary gangrene ; but it has also been observed in bronchitis, with and without dilated bronchi ; in tuberculous excavation ; pneumonic abscess ; empyema, with and without pleural fistula, and after bronchial hæmorrhage.

Now several of these pathologic conditions may be more or less easily excluded as causes of the gangrenous symptoms in our patient. And 1st : *mere bronchitis*, which Andral and Graves long since proved to be occasionally attended with fœtid breath and expectoration, is not the condition present ; for the physical signs prove the existence of a cavity with surrounding solidification. Even *bronchial dilatation* which has also been associated with this offensive peculiarity may be excluded ; for the size of the cavity and the extent of consolidation as indicated by percussion and auscultation are too great to be consistent with that view, and there are no evidences of a chronic bronchial affection in the right lung, which there would be, did bronchiectasis and its invariable attendant, bronchitis, exist in Doyle's left lung. The profuse hœmoptysis which forms so striking a feature in our patient's history, points to another causation than either of those first mentioned ; for I am not aware that it has ever been observed even in well marked bronchial dilatation or in simple bronchitis. 2nd. *Empyema* with or without pleural fistula may also be rejected. For hœmoptysis frequent and copious is not a sign of either condition, nor is there any mention of severe stitch-like pain indicative of acute pleuritis which there ought to have been on the supposition of Empyema. Moreover, did *simple Empyema* exist, the intercostal spaces of the affected side would probably be expanded and prominent, the heart displaced to the right and the limits of dulness altered by changing the patient's position ; and there would be an absence of vocal fremitus, respiratory murmur, mucous and gurgling

râles, cavernous breathing and voice over the dull region. Or, if *Empyema with bronchial communication* were present, in addition to the signs of Empyema just mentioned, there would be in all probability those of hydro-pneumothorax, viz., splashing sound on shaking the thorax; marked dulness inferiorly with tympanitic or increased clearness superiorly on percussion, the sites of these phenomena changing with change of posture; amphoric respiration, metallic tinkling, and amphoric voice with metallic echo. I need not remind you that although there was dulness at the lower part of Doyle's left chest, there was no increased clearness at its upper part, nor did the dulness alter its situation when the patient's position was changed;—that in the dull region, although on its confines respiratory murmur was feeble, yet mucous râles were there audible, and towards its centre gurgling, pectoriloquy and amphoric respiration without metallic tinkling; there was no displacement of the heart, nor widening with protrusion of the intercostal spaces.

3d. The fact asserted by Dr. Law in 1829, (1) that the extravasated blood of *pulmonary apoplexy* or of *bronchial hæmorrhage* occasionally undergoes putrefaction and is a cause of fœtid pulmonary exhalation and expectoration, is now admitted by many pathologists, although Dr. Stokes is probably correct in regarding it as a rare event. That such was not the nature of Doyle's case follows from his positive and distinct statement that the fœtor preceded the hœmoptysis by two weeks.

4th. Is it then an instance of *pneumonic abscess*, the fœtor being due either to local sloughing of the walls of the abscess or to putrefactive changes in its contents? I think not; because in our case the fœtor occurred very early and before sufficient time had elapsed for the formation of abscess, viz., on the fourth day after his severe wetting. Indeed so early is the fœtor often perceptible in gangrene of the lung, that the eminent authority last named is of opinion, that "the disease at first is essentially one of secretion," and the fœtid "fluid is originally poured out in a putrid condition." (2) Rare too as is pulmonary gangrene, abscess of the lung, the consequence of pneumonia is a yet less frequent morbid condition, and *a fortiori*, sloughing of such an abscess. The *profuse* hœmoptysis from which our patient suffered two weeks after his exposure, is, in my opinion, rather favourable to the idea of gangrene than of fœtid abscess; for clinical facts prove, as I shall presently show you, that this symptom has been frequently observed in the former affection, while so far as my researches have been prosecuted, they teach

(1) Trans. College Phys. Dublin. N. S. Vol. 1,
(2) Dub. Quart. Journal, Feb., 1850, p. 11.

that it is not a frequent one in the latter. And this is just what might be expected after reflecting upon the teachings of morbid anatomy—the vessels terminating in the walls or traversing the cavity of an abscess—a circumscribed suppuration—are usually effectually sealed, while those involved in gangrenous disorganization, more frequently remain pervious and pour forth their contents. For these reasons then, I do not regard the case under observation as one of fœtid *pulmonic abscess*, and in the present state of knowledge but two explanations of the case remain, *tuberculous cavity* and *gangrene* of the *lungs*. Let us now examine the arguments which favour the latter view rather than the former, and then those which are antagonistic.

Reasons in favour of Doyle's case being one of Gangrene of the Lungs.

1. His previous good health up to the time of the sudden manifestation of severe cough and fœtid expectoration, is quite consistent with what we know of gangrene. Whereas, in tubercular disease of the lung, some signs of impaired health, and a more or less dry cough, almost invariably precede fœtid or even purulent expectoration.

2. The nature of the apparent cause of the attack—the prolonged contact of cold and moisture. Our patient's clothes were saturated with rain while driving a distance of seven or eight miles, which must have occupied about two hours; a condition than which none could be more efficient in the production of intense congestion and inflammation of the internal organs. That such a cause is competent to the production of gangrene also—nay, that it is a frequent cause of it—is proved by the fact that three out of Dr. Law's four cases of pulmonary gangrene, (1) four out of Dr. Stokes' nine, (2) and two out of Andral's three, (3) i. e. nine out of sixteen cases were induced by the sudden and powerful operation of cold; and further, in five of those nine, the co-operation of moisture was present—thus two fell into the water, two were chilled while bathing, and one by long exposure to a cold sea fog.

3. The short period which elapsed between the wetting and the occurrence of the fœtid expectoration—only four or five days, if we can rely upon the patient's statement. This I hold to be almost conclusive of gangrene; for it is impossible to believe, that in that time tubercle could be deposited, a vomica formed, and its walls attacked with gangrene. In one of Dr. Stokes' cases the fœtor was observed on the fourth day of the illness—in another, "within a week"—in a third, after "some days;" and so on.

(1) Lib. Cit.
(2) Lib. Cit. and Dis. Ches., Am. ed.
(3) Clinique Medicale, t. 3, pp. 443-456.

4. The fœtor preceded the hœmoptysis. This it has been occasionally observed to do in gangrene; but in all probability the hœmoptysis would have preceded the fœtor were it a case of tuberculous cavity; for Dr. Walshe has shown that this symptom occurs in 50 per cent. of all phthisical patients within the first month's illness, and in nearly 72 per cent. during the first stage of the disease. How improbable, then, that Doyle should for the first time suffer from hœmoptysis when in the third stage of consumption!

5. The attack of profuse and protracted hœmoptysis supervening upon a very severe wetting, in a previously healthy person, points to a sudden and serious lesion; and cases are on record to show that such a combination has frequently occurred in pulmonary gangrene. Thus in six of the nine cases of gangrene of the lungs, already mentioned as caused by the sudden and powerful operation of cold, more or less hemoptysis, was a striking symptom; indeed, in three of them it was profuse, and in one of these seemed to have been the immediate cause of death. The duration of the hemorrhage in our patient has something very striking in it he asserted positively that it continued for six weeks without actual intermission, and that occasionally it was enormous. Such a protracted hemorrhage appears rather indicative of destruction of pulmonary tissue by sloughing, than of the congestion of the lung, which occurs in the early stages of phthisis. And it is quite probable that the fearful hœmoptysis, which began on the 25th instant, and in twelve hours filled with florid red blood a large chamber utensil to two-thirds its capacity, was repeated on the 26th and 27th, to the extent of about a pint (exclusive of the copious and abominably offensive diffluent expectoration) and now continues,—has been caused by a fresh invasion of the sloughing process. Before leaving this part of the subject, I would remark that hœmoptysis is a more frequent symptom of pulmonary gangrene than is generally supposed. In one of the ablest and latest works on thoracic disease, Walshe, when speaking of the expectoration in gangrene of the lungs, says, it is "rarely bloody in adults." Dr. Stokes, it is true, concludes, "that hœmoptysis attends each access of the remittent disease;" but this does not express the whole truth, for I find that the symptom in question occurred in adults in 18 out of 32 cases in which anything like a careful record of the symptoms had been made. In three of the former, tubercle was also found in the lungs at the autopsy; and allowing, for the sake of argument, what certainly requires proof, that the tubercle preceded the gangrene, and was the cause of the hœmoptysis,—there yet remains the proportion of 15 cases of hœmoptysis to 32 cases of gangrene, or nearly one-half. Let me remind you that while hœmoptysis

is a rare symptom of phthisis in children, it is a frequent one in pulmonary gangrene. MM. Barthez et Rilliet (1) noted it in four out of sixteen examples of the disease.

6. Gangrene of the lungs is said to be a more frequent affection than sloughing of the walls of a tuberculous abscess. That accurate observer, Laennec, says that it is "at least ten times more frequent."

7. The healthy condition of the right lung. The most careful examination failed to detect any evidence of disease in the right lung, while a cavity and adjacent alterations were clearly established in the left. Now, it is the result of experience that tuberculous disease seldom—very seldom—reaches an advanced stage in one lung, without some traces of a similar disease being present in the other. The same rule does not apply to gangrene; hence a strong argument (when taken in connection with others) in favour of Doyle's being an example of gangrene.

8. The circumstance that the base of the lung is the chief seat of the disease, and that the disease has attained a more advanced stage there than in the apex, points strongly to gangrene, which very frequently begins in the lower lobes, whereas the habitat of tubercles is almost invariably the apex; so much is this the case, that when the tubercular deposit occupies both situations, it is almost always most advanced in the latter.

9. Lastly, Doyle's sallow, wan, and greasy unhealthy appearance is peculiar and reminds one of the "wan and leaden" complexion assigned by Laennec to the subjects of this disease; it is very different from that usually witnessed in phthisical patients.

Let us now discuss the

Arguments which may be urged against our Patient's Ailment being that of Pulmonary Gangrene.

1. His illness after the wetting not having been as severe as might be expected in so serious a disease as gangrene. Bear in mind, however, that his illness did oblige him to lie down at the end of a week, although being of very active habits he resisted as long as possible, and that his symptoms grew progressively worse for eight weeks. Moreover, that gangrene of the lungs, especially when circumscribed, is sometimes very insidious, is admitted by most writers since the fact was mentioned by Laennec; and one of the latest original contributors to this subject, Dr. Silverberg, remarks that "pulmonary gangrene may begin with the signs of an affection presenting little danger,; it is only in a few cases that its true nature can be recognized immediately after its commencement."

(1) Traite Clinique et Pratique des Maladies des Enfants, t. 2 p. 411.
(1) Brit. and For. Med. Chir. Rev.; No. 36, p. 251.

2. The improvement in his condition and partial return of health three months after the invasion of the disease. This improvement, however, could not have been very great, inasmuch as the patient was only able to work for three days. However, gangrene occasionally runs an intermittent chronic course, in which relapses or fresh attacks of the disease succeed temporary recoveries. Dr. Stokes relates two very interesting examples of this nature, both of which presented the following features:—prolonged exposure to cold, followed by symptoms and signs of pulmonary gangrene; temporary recoveries, and without apparent cause; relapses with returns of the previous symptoms. (1) Professor Walshe also has "seen a case in which fœtid gangrenous expectoration continued with intermissions for months, without much attendant constitutional suffering, but with gradual developement of the signs of excavation." (2) Such appears to be the nature of Doyle's case, as I have already suggested.

3. Some of the ablest writers have affirmed that gangrene of the lungs cannot last five or six months; whereas Doyle's illness has been of ten months duration. This objection is completely met by the three cases last mentioned; Dr. Stokes' 2 cases lasted "many months," and Prof. Walshe's for "months." Dr. Law had one case under observation for "more than a year."

4. Lastly, the comparatively little prostration and emaciation, notwithstanding the extent of the disease and the large size of the cavity. The answer to the second objection meets this—the size of the excavation has increased progressively with the fresh outbreaks or returns of the sloughing process. The patient, too, has been very favourably situated since the invasion of his malady—he has been an inmate of various public hospitals nearly the whole period, where besides freedom from damp and cold, intemperance and hard work, he has had a supply of good nutritious food, and careful medical treatment. Moreover, it is well to recollect that there is no standard by which to measure the tolerance of disease peculiar to different constitutions—one man shall succumb under cholera in four or five hours, another shall resist for twenty or thirty.

On reviewing the statements just made, then, it appears that each of the four arguments against the view that our patient's case is one of gangrene of the left lung, may be met more or less satisfactorily; but that in favour of that view, there are six good reasons and three doubtful. The good reasons being 1st, the patient's previous excellent health up

(1) Dub. Quar. Jour., New Series; No. 17, p. 10.

(2) Dis. Lung and Heart. 2nd Ed., p. 458.

to the time of the wetting and occurrence of severe cough and fœtid expectoration; 2nd, the nature of the apparent cause of the disease—prolonged contact of cold and moisture—being one well calculated to produce, and which has frequently produced, gangrene of the lungs; 3rd, the brevity of the interval (4 or 5 days) which elapsed between the exposure and the developement of the fœtid expectoration, and its accompanying and preceding symptoms of chills, heat and general indisposition; 4th, the fœtor having preceded the hœmoptysis; 5th, the much greater frequency of pulmonary gangrene than of fœtid tuberculous vomica; and 6th, the healthy condition of the right lung.

The three remaining arguments in favour of this view of the case, I have called *doubtful*, because they are of less weight than the others; but taken in connexion with them, they possess a considerable value.

I am thus obliged by what seems to me the state of the argument, to conclude Doyle to be the subject of that interesting and not very common disease—*Gangrene of the Lung.*

While on this subject, let me call your attention to the case of the man, Wolfe, in Ward —, recently admitted, complaining merely of weakness, loss of appetite, rejection of food, indeed, if his own statement, exaggerated as it was, were true, of inability to swallow it; and whom on close examination we found the subject of cough, muco-purulent nummular like expectoration, with some physical signs of tubercular deposit at the apices of the lungs, and the well developed physical phenomena of a circumscribed pneumonia at the lower part of the left lung. The pneumonia was in the stage known as congestion, but it has since passed into hepatization. In this patient besides an absence of the well marked inflammatory fever and the rusty expectoration of pneumonia, there is a very weak pulse, a peculiar sad, discontented and distressed expression of face, marked general prostration, and most singular of all, at times a horribly fœtid odour of breath—in character, precisely like that of poor Doyle's. This fœtor was noticed the day after his admission, and two or three times since, but on no occasion, more sensibly than yesterday. Is this a second case of pulmonary gangrene? an illustration of what almost seems to be a law, that one uncommon case seldom occurs singly, others soon follow it; I believe it is, and shall watch the progress of the case with increasing interest, more especially for the signs of forming cavity consequent in the separation and breaking down of the eschar.

Besides the peculiar combination of excessive prostration, a limited amount of pneumonia in the first stage, (an amount which fails to account for the degree of vital prostration present) and gangrenous odour of the breath, a combination which is generally regarded as almost characteristic of gangrene, there is a point in the patient's history which

favours the probability of any disease of his lungs, taking on a destructive character—his habits have been very intemperate. Intemperance is an item frequently met with in the histories of the subjects of gangrene. Dr. Silverberg [quoted before] states that 8 out of 18 of his patients were drunkards. (1)

Time will not allow me to speak of the pathology of gangrene of the lungs, which is a topic of much interest and about which much information is yet needed; the correctness of the diagnosis in the cases just discussed will, I fear, be tested by an autopsy before many weeks; till then observe.

Sequel to case of Doyle.

The hœmoptysis recurred during the night of the 27th Jany., rather freely and he sank on the morning of the 28th, exhausted.

Autopsy.

Thorax. Obliteration of left pleural cavity by very dense and very thick old false membrane over an extent corresponding to the lower half of left lung, including its diaphragmatic surface. Anterior half of upper lobe of this lung as far as apex free of disease, except a narrow strip which bounds the inter-lobular fissure;—this fissure almost completely obliterated by old adhesions. Posterior half of same lobe is the seat of a somewhat pinkish grey (tuberculous?) hepatization or infiltration, parts of which are beginning to soften, for when scraped small circular cavities remain. Small cavity at surface of lateral aspect of same lobe midway between inter-lobular fissure and apex; pleura covering which is of a dark green hue. This cavity is the size of an almond and is filled with a grumous dirty greyish yellow, diffluent fluid, very fœtid and containing shreds of pulmonary tissue attached by one end, free at the other, in a gangrenous condition, and retaining none of the naked-eye character of pulmonary tissue. In the same lobe, but a little lower down and deeper, is a 2nd cavity, about three times as large as the first, also in a gangrenous condition; of a darker colour, with more of a greenish tint; contains debris of pulmonary tissue, and like the last emits the disgusting odour observed during life.

In lower lobe a large somewhat irregular cavity extends from within half an inch of the diaphragmatic surface upwards, along posterior portion of the organ, almost to the interlobular fissure; although torn open dur-

(1) This patent died some few weeks after, and besides tuberculous disease in the upper part of both lungs, a circumscribed gangrenous cavity was found in the lower lobe of the left lung.

ing its removal, it still retains two or three small masses of a dirty white color and of the consistence of fresh mortar, and some fœtid bloody fluid like that expectorated. Its walls of a dark green hue, tolerably firm and lined by sort of membrane. Some small agglomerations of semi-opaque tubercles along anterior border of lower lobe; the intervening tissue slightly congested; at some points, this deposit softer and moister than elsewhere as if softening had begun, but no pus, nor any yellow cheese-like tubercle anywhere—left pleura contained a little serum without fœtor.

Right lung has not collapsed, fills right chest completely; pale and anæmic generally, save at some points posteriorly where it is slightly congested—uniformly crepitent and healthy throughout except a spot at extreme apex, size of a hazel nut which appears to consist of firm semi-opaque whitish tuberculous (?) infiltration; and some pure patches of vesicular and interlobular emphysema. No pulmonary collapse observed; bronchi of both lungs contain blood partly coagulated, chiefly fluid; old adhesions between opposed pleural surfaces, laterally—no serum in the sac.

Body well covered with subcutaneous fat.

Remark.—Although tubercle co-existed with gangrene in this instance, yet for the above reasons assigned during the life-time of the patient and because of the tolerably recent—or at least—not advanced condition of the tuberculous exudation in the apex I am still of opinion that gangrene was the original lesion and that tubercle had been subsequently deposited, and certainly that the fœtor was not due merely to sloughing of the walls of a tuberculous cavity.

Bonaventure Street, Montreal, 1857.

ART. V.—*Foreign body in the urethra.* By Charles Picault, M. D. Montreal.

On the 28th May last, M. C., aged 29 years, came from Laprairie to my office at about 7½ o'clock, A. M., for the purpose of having extracted from his *urethra*, the hook of a watchguard which had been introduced under the following circumstances:

During his sleep, his bedfellow had passed into the *meatus urinarius* a pin, head foremost, leaving it until he awoke, when he told him what he had done. He immediately tried to extract it, but found that he could not, as the point had entirely disappeared beyond the *meatus*, and any attempt to remove it, only pushed it further in.

Being considerably agitated he then introduced the hook of his silver watch chain, with the hope of being able to catch the pin; and after a good deal of painful manipulation, he at last succeeded, but on attempting to withdraw the chain, he found that it had become firmly fixed in the passage and resisted all his attempts to remove it.

The hook was rather more than an inch in length, the point being sharp and turned outwards as the points of such hooks usually are. This of course acting as a kind of barb and being caught in the folds of the lining membrane, any force used in attempting to extract it, only served to bury it more deeply and render its removal still more difficult Finding that all his attempts at removing it only resulted in causing excruciating pain, and copious hemorrhage, he at last decided on coming to Montreal.

On examination, the hook was found completely within the orifice together with about half an inch of the chain. The organ was very much swollen, and on stretching open the *meatus*, lacerations of some extent could be distinguished. The hemorrhage continued and must have been copious, for his clothes were completely soaked through. The pain was intense and the least traction augmented it materially.

On considering as to the best means for removing the hook; three methods occurred to me, viz:

1st. To introduce a grooved director into the canal in such a way as to cause the point of the hook to enter the groove and then to slip it along by gentle traction on the chain till completely extracted.

2nd. By retracting the glans gradually until the eye and a portion of the hook could be uncovered and seized by a pair of strong dressing forceps; then to open the hook forcibly and extract it gradually by causing the margin of the meatus to glide back over the greater curve thus produced.

3rd. To cut into the urethra, making an opening large enough to extract the hook and to detach it from the chain.

The state of engorgement and the extreme sensibility of the parts rendered the introduction of a director extremely difficult, and the hook had so completely disappeared in the canal, that the point could not be found, so, after a single unsuccessful attempt, I abandoned this method, and proceeded to adopt the second.

It is unnecessary for me to detail the various steps of the procedure; suffice it to say, that after I managed to secure the upper portion of the hook by means of the dressing forceps, I easily succeeded in opening it out gradually, at the same time retracting the margin of the opening until the whole hook was withdrawn, the point coming out last.

I then directed him to keep the following lotion constantly applied by means of lint soaked in it, viz:—R. Tinct Arnica, ten ounces; aqua, one grain, one drachm, ft. Lotio. The inflammation subsided rapidly and in two days the patient was perfectly well.

The above I have presented without comment. It may perhaps be found interesting as an example of numerous cases in which the young practitioner is obliged to exercise his own ingenuity in modifying the usual rules of surgery.

ART. VI.—*Strychnia; being extracts from the Materia-Medica Prize-Essay, of the Session* 1856-57, *McGill College.* By Mr. Alexander Reid, London, C. W.

Preparation.—I have tried another method, altogether different from any yet mentioned, (the Pharmacopœal and Molyn's) and which, with the quantities manipulated with, I have found very successful. Every procedure, at present used, is very expensive, so that the value of the manufactured article becomes much more expensive than it would be if a cheaper means were employed. I shall not say that my explanation of this process is correct as regards chemical decompositions, but that you may obtain the desired product is I think certain. One advantage which my method presents is that the substances used to separate the alkaloid from its natural combinations are very cheap, and easily obtained of the proper purity required. The agent I use to separate the alkaloid from extraneous substances is chlorine. If it be applied as chlorine water I have not found it act with much certainty, but if used as the solution of Hypochlorite of Soda, it acts very well. I prefer the Hypochlorite solution prepared by precipitating the lime from the dissolved chloride of lime, of commerce by carbonate of soda. If the other article be used, which is prepared by passing chlorine through a solution of the carbonate of soda, you have a large quantity of bi-carbonate of soda present, which can be of no use in making the alkaloid; and further, when this solution is added to the decoction, it changes to a red colour without causing a precipitate.

I make a decoction of the rasped or powdered nux-vomica seeds, in water acidulated with sulphuric acid; if the decoction be not acidified when the chloride solution is added, in place of a dense white precipitate, you have a very small quantity of a tawny or light-yellow colour. I think that the sulphuric acid in the decoction serves a double purpose; firstly, decomposing the Strychniate, and forming the more soluble

Sulphate of Strychnia; and secondly, of setting free the chlorine in the hypochlorite solution,—thus enabling free chlorine to unite with the free Strychnia, when the acid separates from the alkaloidal base to unite with the soda in preference. And also there is no doubt, but that less boiling is required when the acid is used, than otherwise, because in the former, the stronger acid will at once displace the weaker, and by this a more soluble salt is formed; whereas it takes long continued boiling to dissolve the very insoluble Strychnate of Strychnia.

The acid also has an effect upon the gummy and starchy principles of the seed, but as to whether the sugar formed, hinders or assists the precipitation of the alkaloid, has not been enquired into; or it may remain perfectly neutral, and this is the most likely.

Where the hypochlorite solution is added to the decoction of the seeds, rendered very acid, an abundant precipitate of a white colour is thrown down, which is a compound of Strychnia and chlorine. What may be its chemical composition, is uncertain, but it cannot be the hydrochlorate because that salt is very soluble; it cannot be free Strychnia, as its reactions given further, are clearly shewn; and if it were hypochlorite, I do not think a similar precipitate would be formed when chlorine water is added to a solution of a salt of Strychnia, and also where a stronger acid is added to the hypochlorite solution, as the sulphuric, it is principally hydrochloric acid, and free chlorine that are given off.

Reasoning from these data, the conclusion arrived at is, that it is some compound of chlorine which is not as yet described, as far as I can find out at least.

Now if we look to some of the other halogen radicals for an answer to the question, we find a compound of iodine, which has not as yet had its analogue in the chlorine series, and this is the ioduretted iodide of an alkali, the most common of which is that of potassium.

I think that the hypochlorite solution which I use is a similar compound in many respects with that of iodine, just mentioned, having sodium as its base. There has been a great deal of argument concerning the substance in question, which I think might be almost settled if it be viewed in this light, and compared with the iodine compound of a similar nature.

From these results, (the effects of combining iodine with different bases) we can expect similar reactions with these bodies, when they are placed in similar positions; and as we find that if iodine be added to iodide of potassium, we have a new compound formed, so are we to expect if chlorine be added to chloride of potassium, or sodium, that we will have an analagous compound of chlorine, which reactions I am not

aware of any person having examined into, and which I have not the convenience to perform or examine into, even if I had the will.

In answer it may be said that the hypochlorite solution is not made by adding chlorine to a chloride, but merely to an oxide of an alkali. To solve this I may first state that when the chloride unites with the alkali, it forms a chloride and a chlorate, and continuing the supply of chlorine, is in reality adding chlorine to a chloride, as you add iodine to an iodide. But in this decomposition we have a chlorate, and it may be thought that it takes part in the subsequent decompositions, but I think that it remains almost neutral for two reasons; firstly, it is a very stable compound when united with a base, and not very likely to be acted on, hence it is present in the officinal solution in an undecomposed condition; and secondly, if we add iodine to potassa an iodate is formed as well as the iodide, and nevertheless its general reactions, if more iodine be added, are the same as if none of the iodate were present.

In fact the preparation of iodureted iodide, and the solution of chlorine are perfectly similar; only in the one, we add iodine, as it is a solid body,—but the other being a gas, it must be handled in a different manner, and this is done by transmitting it into a closed chamber, which contains the substances to be acted on by it.

Reasoning from the facts given, I should say that this solution is not in reality an hypochlorite, but a solution of chlorine in chloride of sodium, with some chlorate of soda present; and if made from the carbonate of soda we will also have some bicarbonate of that base. These latter substances being merely impurities resulting from the faulty manner of preparing it, and which should not be present if it were prepared aright.

I think that if this substance were to receive its proper chemical name it should be called the *Chloureted Solution of Chloride of Sodium*, or in a solid state as *Chloureted Chloride of Sodium*, if it be named similar to the like compound of iodine; and that the way to prepare it in its pure state is this:—chlorine gas should be transmitted through a solution of chloride of sodium of the proper strength—or let chloride of sodium, moistened with water, be exposed to an atmosphere of chlorine, until all the gas is absorbed that it will take up; and for lime, to proceed in an analagous manner, but in the latter case the chloride of calcium being too costly, and being only used for the purposes of the arts, the present method is no doubt the cheapest; although as regards soda, I think the method here mentioned would be preferable, not only on account of its certain chemical composition, but also on the score of cheapness: Because in the present method the chlorine is abstracted from the chloride of sodium, and the carbonic acid placed in its stead at great

expense, which is of no use when we take this carbonate and again replace chlorine by substitution for the acid.

I have digressed a little from my subject to explain the reason I have to give a certain name to the Strychnia precipitate; this precipitate I think, from the way that it is formed should be called the Chloruretted Hydrochlorate (chloride) of Strychnia.

When you have this product obtained, it should be washed to remove all soluble substances, and then treated with liquor potassa. By this its appearance is changed and it is not so bulky as it was previously; it seems at first to be almost dissolved, but on standing a little a precipitate forms and settles down to the bottom, which is Strychnia, and is of a gelatinous flaky appearance at first; after having washed and dried it, dissolve it in sulphuric acid and water, by the aid of heat, and when this hot concentrated solution cools, the sulphate in a pure state is deposited around the sides of the vessel, in needle like crystals, which form themselves into star-like groups. If the pure alkaloid be required it is precipitated in crystals by adding ammonia to the hot solution of the sulphate, or in an amorphous form if the solution be cold.

It it be preferred you may take the first precipitated strychnia, dissolve in alcohol, decolorize if it be required, and crystalize from the alcoholic solution. I am not able to say from the quantities with which I manipulated whether brucia be thrown down with it or not; I know the solution after the white precipitate was separated from it by filtration was a little coloured by strong nitric acid, but it may have been a mere casual circumstance; I think that very likely liquor sodæ would answer as good a purpose to abstract the chlorine from the Strychnia, in the white precipitate as liquor potassae; but as I did not try it I cannot say for certain anything about it. I think that this method would do for some of the other alkaloids, as quina, which have similar reactions with respect to sodium chloradine, but it is out of place here.

I have also prepared Strychnia by adding the ioduretted solution of iodine to an acid decoction of nux vomica seeds; an insoluble compound of strychnia is thrown down of a dark colour, which upon being acted on by liquor potassa, became of the same colour as if chlorine had been used: and the alkali was obtained by continuing out the before mentioned process. By this method I thought, I have obtained only the strychnia and without brucia. If iodine were used in preference to chlorine, the iodine might be all saved, as the iodide and iodate formed might be separated from the mixture, and the iodate converted into iodide, by exposure to a red heat.

Bromine will also answer a very good purpose, as the reactions are similar to chlorine, but it would be expensive and could not be superior to it.

Tests.—Of all this array of Tests, (those mentioned by Taylor on Poisons, and in other ordinary works of reference) there is not one upon which we can rely alone in the hour of need. (Attention is now invited to the analytical claims of a solution containing Iodine and Iodide of Potassium)* which I have found give very distinctive reactions with Strychnia. This test is best prepared by making a saturated solution of iodine in iodide of Potassium, then dilute it until it is of a dark cherry-red colour, when it will be of about the proper strength.

The only objections (the reactions with various acids, metals, &c., have been examined, and not found fallacious) to this test are quinine, Veratria, and Beeberine, as these give almost similar reactions. With morphine and santonine there is no visible change Strychnia may be distinguished from veratria by drying the precipitate, when the latter will be of a yellow colour, and the former of a blackish yellow; and from quinine, in not being so dark, as its precipitate is, when dried, of a blackish-brown; with beeberine, it gives one similar to quinine, although scarcely so dark in colour. The best way to distinguish the shades of colour is by comparison; when first formed all these are similar in appearance, but they change when kept for some time; but the great distinctive mark is that the only precipitate which is formed from Strychnia gives the play of colours with sulphuric acid and binoxide of manganese. (described as narrated in books on Materia Medica, &c.) There is a peculiarity in the way in which the precipitate conducts itself at first.

If the test be added drop by drop to clear water, it falls down to the

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[* This test is not a novel one. Iodine, both in the free and the potassiuretted state, has been for many years back employed in analytical researches concerning Strychnia. An iodid of this base has been described in Chemical treatises; iodine has been advised as the proper antidote to the alkaloid; iodine and iodid of potassium, both singly and jointly, have been employed as tests, and their reactions described, &c. The merit taken away by the lack of priority is however well supplied by the full elaboration and minute investigations of Mr. R., whereby he has placed the subject in almost a new light; and has procured for the test a claim to notice and adoption, which it never had before. And although exploring a mine in which predecessors had engaged, he was honestly unaware of any other attainments than his own. The principal information upon iodine as a test for Strychnia, was made public, only last summer, after Palmer's Trial, in the weekly medical papers of London, and to these Mr. R. had no access. Here and elsewhere in the text the parenthesis is ours, being introduced in explanation of parts of the essay that have been omitted.—Eds. Med. Chr.]

bottom of the test tube, not even tinging the liquid; after coming to the bottom it lies evenly over it, and when you shake it, it becomes of a clear straw-yellow colour,—as iodine is soluble in iodide of potassium. But if even a very minute quantity of strychnia be present, when the drop of the test reaches the bottom of the test tube, it appears to be fringed with a dirty white precipitate, and by shaking it up a little, this gradually pervades the whole, and it becomes a dark brick red precipitate.

If the mixture be shaken it acquires a reddish colour from the precipitate being mixed up with it. If this be allowed to stand it will gradually settle down, unless the Strychnia be present in too minute a quantity, when in this case the precipitate remains suspended in the liquid, and hence gives it a muddy appearance. If the solution containing strychnia contain blood also, the alkaloid can not be detected with the same delicacy, as the precipitate formed is marked by the colour of the solution; but if the solution be of great strength, then it is brought out as well as if pure water alone was the solvent. If the precipitating test be added to a mixture of boiled blood, a dark-red clot is formed, which does not mix with the other portion of the mixture. The test will not act if it be added to the Strychnia held in solution by alcohol, as the precipitate is soluble in that menstruum, but if it be evaporated or diluted, it then will act in the accustomed manner. The bitter vegetable infusions are not affected by this test, and the strychnine can be detected in these without any difficulty.

The action of acetic acid will also distinguish the dried red precipitate of strychnia from that of the other alkaloids; if it be added to the former precipitate it appears to be partly dissolved, with a little still remaining at the bottom of the test tube; the supernatant liquid also becomes milky, with a yellowish tinge, such that you can scarcely see through it; if heat be applied, that which was dissolved is precipitated, and the mixture becomes transparent, and almost colourless; by continuing the heat it again becomes dissolved, and the solution limpid and transparent; upon adding ammonia to this, no change follows.

If the veratria precipitate be acted on by the same agent, the mixture becomes yellow, but the precipitate is not much dissolved, and it is also rendered of a darker colour; excess of acid does not exert any more solvent power, and the mixture always remains transparent: when heated, it looses the colour and becomes clear; when ammonia is added a milkiness is produced which is dispersed when heated, but again forms on cooling.

If the quina precipitate be treated in the same manner, the supernatant acid becomes of a reddish-yellow colour, but it is not dissolved

unless by the aid of heat; the mixture is transparent, but after heat is applied it becomes of a yellow colour, which disappears when ammonia is added, and a milky fluid remains, not much acted on by heat.

To distinguish each of these three different reactions, it is much better to compare the one with the other, when their difference is then quite visible; but if you use the freshly precipitated products, a difference with the acetic acid is caused. With Strychnia, the same yellow dingy colour is produced, but the precipitate is not dissolved even if an excess of the acid be added; ammonia causes the mixture to become clear and transparent. With veratria, it makes a translucent yellow solution, a few grains remaining at the bottom of the test tube of a black colour, which do not appear to be acted on; ammonia causes a turbidity. With quina it forms a very transparent solution of a yellow colour, from which ammonia throws down at first a whitish precipitate, that is dissolved if a slight excess be added. If these products be acted on by strong sulphuric acid alone, the veratria gives a play of colours, first yellow, then red, and then violet; quina becomes greyish brown, and strychnia becomes brownish yellow. Strong nitric acid does not affect either of these very much.

If strong sulphuric acid and binoxide of Manganese act on the Strychnia precipitate, it first becomes purple, inclining to red and then reddish brown; with quina, veratria, and beeberine, nothing distinctive results. These last reactions are what I lay most confidence in, as the distinguishing peculiarity of Strychnia.

(*To be continued.*)

REVIEWS.

ART. V.—*The Diseases of Women;* including those of Pregnancy and Childbed. By Fleetwood Churchill, M.D., T.C.D., M.R.I.A., Vice-President and Fellow of the King and Queen's College of Physicians in Ireland; one of the Presidents of the Obstetrical Society; Professor of Midwifery, with Diseases of Women and Children in the King and Queen's College of Physicians in Ireland, &c., &c. A new American edition revised by the author. With Notes and Additions by D. Francis Condie, M.D., Fellow of the College of Physicians of Philadelphia, &c.: Blanchard & Lea 1857.

In the present volume the diseases of women are described in three books, the first of which is devoted to the consideration of the diseases of the

organs of the sexual system, the second to diseases of pregnancy, and the third to those of childbed. The number of distinct subjects they embrace is, as might be supposed, very large. No important disorder or lesion appears to have been omitted, and the whole is discussed in a manner which is condensed, at the same time that it is comprehensive. Like the other works of its distinguished author, it exhibits to a remarkable extent a high character for profound research, and gives the purport of much that is found in treatises beyond the reach of practitioners ordinarily. Its value is further augmented by affording a statement of Dr. C.'s personal experience, and under this consideration, the present edition has claims to professional regard transcendant to any other. He not having suffered the intervening time to pass unemployed, but applied to profitable account the numerous opportunities of ascertaining peculiarities in the specialities of women's diseases, which an increasing practice afforded. Three entirely new chapters have been added upon Tetanus, Paralysis and Arterial Hœmorrhage And another feature of novelty is the introduction of illustrations by wood cuts; these are forty in number, and have been copied from various sources, as from the drawings of McClintock, Clarke, Boivin, &c.

Dr. C. considers diseases of the uterus as divisible into the two simple classes of functional and organic. Under the first, the initiatory is Amenorrhœa. Of this state, which we are accustomed to receive as abnormal, several strange facts appear which would almost justify us in believing that when it exists it is not always a morbid phenomenon. It is generally understood that the setting up any diverticulum, after its establishment, in favour of the uterus or the occurrence of a vicaious action similar in kind or in design, is a protection or immunity to the system at large against the evil consequences that would otherwise be entailed by the suppressed function. And accordingly the ever present examples of gestation, lactation, as well as the more rare ones of vicarious menstruation, are commonly familiar. But it is not known in the same way that amenorrhœa may exist in women in whom no compensatory event is proceeding. It is to this class our original remark more especially applies, and was suggested by learning from the work before us that "the mother of a large family had never menstruated;" and that in a family there "were five daughters, whose ages ranged between 13 and 26, who, though in excellent health, had never menstruated." The first fact is also a contradiction to the idea usually entertained, that females who are afflicted with emansio mensium do not conceive. Happening under singular circumstances like these, it is not extraordinary that the proximate cause of amenorrhœa should be *in obscuro*. Dr. C.

observes of the pathology: "The question is very difficult, if not impossible, to decide, in the present state of our knowledge; but it appears very probable that, in many cases, the disease depends upon some condition of the ovaries." The treatment of this malady is confessedly difficult. A great variety of different remedial means, intended to fulfil dissimilar indications and acting upon discordant principles, have been used. One fact, however, seems well ascertained: that all cases are not to be cured by any unvarying administration of a single set of agents. Says Dr. C.: "The treatment must be varied according to the constitution of the patient, and according as it may be undertaken during an interval, or at a menstrual period." To which we would add, it should be mainly *conditional*, and adapted to the particular state of the system at the time; by attending to which important circumstance a cure is often accomplished without any further trouble, owing to the failure of the catamenial secretion being but a part of an error or vice pervading the entire frame. This fault is, usually speaking, one of two extremes arising either from a universal plethora or anæmia. There appears to be a growing distrust among practitioners of the powers of the so-called Emmenagogues. Undoubtedly, with the majority of substances comprised by this designation, it would be more proper to say that the word can only be legitimately received, in strict medical usage, when it has reference to a possible end which the reputed agents may perchance attain; and that, virtually, it is inexpressive when applied to express that the medicines in question possess a specific power by which they are capable of invariably producing an absolute result. Nevertheless, that there are sanative measures directly emmenagogue, we cannot deny; and, although they may fail occasionally, yet such an accident is no more than is observed to attend the employment of any other particular class of remedies, and may in this one, as in these other cases, be appropriately referred to an existent impediment to their efficient action present at the time of their employment. Under absolute emmenagogues, we would include, with medicines, certain obstetrical auxiliaries which have been recommended to public notice from time to time. One of the latest of these Dr. C. thus describes:—"Dr. Simpson has tried congestion and irritation of the mucous membrane of the uterus, produced by the introduction of a silver catheter, with a number of perforations at its inner extremity; to this an exhausting syringe is fixed, and the air repeatedly exhausted. When withdrawn, the extremity of the catheter is filled with blood; and, in many cases, the artificial menstruation thus established is continued naturally." Of medicines, Strychnine has enlisted Dr. C.'s approbation in its favor. Out of twelve cases treated by Sir James Bard-

ley, of Manchester, ten were cured and two relieved. "And to this number I can add several cases in which the cure was complete and permanent."

Of the organic diseases of the uterus, none is as appalling as Cancer. Indubitably fatal when left to itself, it spares no age. It has been met with in young persons under 20; and in the aged who have advanced beyond the time of humanity, prescribed as three-score-and-ten by the Royal Psalmist; and its prevalence is comparatively of extreme frequency, as may be even proved by looking over the statistics of the dead, and keeping out of consideration those that concern the living. From quotations given by Dr. C., we find that in 1831 there were 379 deaths from diseases of the female genital organs, and of these 276 were from cancer. In 1834, of 436 deaths, 304 were due to cancer. In some years the mortality was smaller, though still, in the aggregate, large. In 1835, of 508 deaths, only 285 were from cancer. As all medicines have been equally useless in this lesion, its treatment has been referred to the powers of the surgeon. Various operations have been recommended; mostly, however, resolving themselves into those, where the neck of the uterus is excised, and those where the entire uterus is extirpated. In summing up the various statements made of the first, or excision:—

"1. As the only hope of benefit from the operation rests on the possibility of removing the *whole* of the disease, it would clearly be a wanton barbarity to attempt excision, except when the cervix within reach alone is affected. The limits within which an operation can be safely attempted are marked by the insertion of the vagina into the superior part of the cervix uteri.

2. Again, it would be useless and injurious if the surrounding parts, (lymphatic glands and cellular membrane) are affected, inasmuch as the fatal progress of the disease would rather be accelerated. The uterus, therefore, should be perfectly moveable. It has been stated, however, that if the enlargement of the lymphatic glands depends upon irritation merely, and not upon deposition, it will subside after the operation, and need be no obstacle to our undertaking it.

3. Congestion of the body of the uterus is contended for by some as an objection to the operation. M. Lisfranc remarks, in answer, that if not excessive, it need not deter us, since to a certain extent it exists in all cases, and subsides spontaneously after the operation.

4. Congestion of the ovaries is not regarded as an obstacle by the daring operator of La Pitié. He argues that as Baron Larrey used the cautery with impunity under such circumstances, no harm will result from excision.

5. Circumstances, which would forbid the performance of any of the great surgical operations, equally forbid this; such, for instance, as any affection of the thoracic and abdominal viscera.

6. The development of the cancerous cachexia and the consequent breaking up of the constitution, by indications of an advanced stage of local disease, will of course prohibit the operation."

"If we now inquire in what cases, in accordance with the foregoing observations, the expectation of benefit from this operation may be reasonably entertained, we shall find our range very limited:—

1. If we could find a case of cancer in which the deposition should be strictly limited to the cervix, without contamination of the neighbouring tissues, or deterioration of the general health, but which nevertheless presented symptoms justifying our interference, we might be warranted in the attempt. But how exceedingly rare is such a combination! and yet I cannot think the operation justifiable in any other case of cancer uteri than the one just described."

After such a decided expression of his own individual opinion we are prepared for expecting that extirpation should be yet more condemned. What applies to the part is equally so to the whole, deriving besides additional opponent arguments from its much more grave nature. Removal differs essentially in point of importance according as to whether the uterus be *in situ* or displaced. Dr. C.'s conclusions on each are:

"After a careful examination of the results of the operation, when the uterus is *in situ*, it is really difficult to find adequate reasons in its favour, except the repugnance which every one must feel to give up entirely the hope of affording relief from the most agonizing sufferings to which the female sex is exposed."

"Our conclusion will be different as regards the removal of a displaced uterus. The operation is far less formidable, is attended with less shock to the constitution, and has been performed repeatedly with the most perfect success. There can be no objection against undertaking it under favorable circumstances, and when the case may require it."

CLINICAL LECTURE.

On Anchylosis of the Knee. By John Erichsen, Esq., F.R.C.S., Professor of Surgery at University College, and Surgeon to the Hospital.

(*Medical Circular.*)

Gentlemen,—What I wish particularly to direct your attention to to-day is the subject of anchylosis of the knee, as we have a case of the

kind in the ward up stairs, to which I intend doing something, in order, if possible, to restore some degree of mobility to the limb.

Of all the deformities that effect the human frame none are of more frequent occurrence than that of stiff knee; and it is of great importance that you should be acquainted with the different forms in which it is generally met with, the causes that commonly give rise to it, and the treatment best calculated to restore the usefulness of the limb, in cases where surgical interference is proper. There are two positions in which anchylosis of the knee generally takes place—the straight and the flexed position; the latter being a much more serious occurrence than the former, and much more frequently met with. When the knee is anchylosed in the straight position, its usefulness in locomotion is not seriously impaired, the greatest inconvenience being experienced when the person sits down, as he is then obliged to thrust the leg out in front of him; and this is often more inconvenient to those near him than to himself. You all know how awkward it is to have a person with a straight leg in an omnibus, or in any situation where room is of consequence; with this exception a person having a leg in this position gets on very well.

When, however, the knee is anchylosed in the bent position, it is perfectly useless, and the person has to walk on a wooden leg or pin attached to the knee, his leg projecting backwards at a right angle with the thigh; or if the knee is not flexed so much as this, he may limp very much, resting the toes on the ground, being unable to bring down the heel. In this position of the limb also the circulation becomes impaired to a certain extent, and the patient is liable to have chilblains, chronic ulceration, &c., consequent on imperfect nutrition of the leg.

Now, there are two forms of anchylosis with may take place in either position, these are, first, complete or osseous; and, second, incomplete fibrous and muscular.

In the first mentioned form, that of complete anchylosis, the osseous surfaces become fused together; the new osseous matter thrown out in the joint becomes cancellous in texture, and the line of demarcation between it and the ends of the tibia and femur is lost, the old and new bone becoming quite continuous.

When incomplete anchylosis takes place the knee is stiffened, but mobility is not entirely lost as in the complete form, the joints yielding to a greater or less extent when force is applied to it.

There are two forms of incomplete anchylosis, viz., the fibrous and the muscular, and the diagnosis between these forms is often difficult. The knee may be so stiff in some cases of the incomplete form as to

give the idea of osseous union; and again, the fibrous and muscular forms may closely resemble each other. Now in all cases the best way of making a diagnosis is to lay the patient flat on his face, and let the thigh rest on the plain surface of the table, then the knee being in the position, will project upwards. Now if there is complete anchylosis you will not be able to move the foot in the slightest degree when the thigh is kept firm on the plain surface, but if it is of the incomplete form there will be a certain degree of mobility, more or less, according to the length of time that the disease has existed; in a comparatively recent case the foot may be made to describe an arc of a circle. It is of importance to diagnose between the fibrous and the muscular forms. And this you may be able to do with tolerable accuracy by attending to the following points,—In the fibrous form there is no tension of the ham-string muscles and they are not rendered tense when you make traction on the foot, and the limb moves to a certain extent and then comes to a sudden stop; but in the muscular form the tendons are found to be tense, and the rigidity is increased by force applied to the foot; these two forms may co-exist. The fibrous form is the most common, and arises from inflammation round the joint. It is sometimes associated with rheumatic inflammation, or it may be the result of synovial inflammation, numerous bands are formed, and are attached in various places and stretching in all directions round the joint bind it in position.

In the muscular form the rigidity is due to the contraction of the muscles, and may arise from two causes; it is sometimes associated with derangement of the uterine system in females, and then you see what is called the hysterical knee; the patient complains of pain in the knee, which after a time becomes contracted without any sign of inflammation; in such cases the knee becomes gradually contracted. It may be due to the irritation of worms in the intestinal canal, producing spasmodic contraction of the muscles by reflex-action, or from the causes that give rise to squint and the various affections of that kind. It may sometimes be due to paralysis of one set of the muscles, but this I think is not a frequent cause, and I believe that this form of the disease occurring in the adult is always due to spasmodic contraction. When it begins in infancy or childhood it may be due to congenital shortening of the muscles, or to an arrest of development, and I have seen cases which appeared to me to be due to this cause, when the tendons appeared naturally too short. This, however, is a point that has not been sufficiently made out yet, and will require further investigation before a satisfactory conclusion in regard to it can be arrived at.

Now with regard to position. Fibrous anchylosis may take place

either in the straight or the flexed position. When it occurs in the straight position it is generally caused by some inflammation taking place in the joint during the treatment of fractures of the thigh, when the limb is kept for a long time in the straight position, but the most common position in which we meet with it is the semiflexed. Now, why should it take place more frequently in this position than in any other? I think the best explanation is this:—The semi-flexed position is that in which the limb instinctively, as it were, places itself as the most easy, when inflammation is present in the joint, as both sets of muscles are then relaxed in an equal degree; but, in an addition to this, it has been found by experiment that when a joint is injected with fluid it assumes the bent position, and when there is effusion into the joint this cause may operate with the one already mentioned in determining the position; but whether effusion is present or not the position is the same, so much for that. Having now gone over the different forms of the disease and its causes, the next point is the treatment to be adopted, and this must of course vary according to the position of the limb and the form of the disease.

If complete anchylosis takes place in the straight position it must not be interfered with, as no operation can restore mobility. If, however, you have a case of incomplete anchylosis in the straight form, you may use passive motion and friction, and by a long continuance of these means some degree of mobility may be restored. When there is complete anchylosis in the bent position, there are two lines of practice, either of which may be indicated by the circumstances of the case.

One plan is to take out a wedge-shaped piece of bone from the front of the joint, and then bring the leg into the straight position, and keep it so until osseous union again takes place, thus converting a bent into a straight stiff limb. This operation has been successfully performed by Dr. Rhea Barton, of Philadelphia. It has not, I believe, been performed in this country yet, but I consider it a feasible operation, and one which I would not hesitate to perform if a favourable case for it came under my care; it does not differ in any material degree from excision of the knee-joint, which is now so frequently resorted to. To be successful, however, the muscles of the limbs ought to be sound. The other plan to be adopted in this position of the knee is amputation, and this will be the best course to pursue if the muscles of the leg are very much wasted or affected by fatty degeneration, for it would be useless to perform the operation for bringing the limb straight under these circumstances; therefore, it would be better to take if off and let the patient get an artificial leg. You may remember that I adopted this course in the

case of a girl we had in the hospital about a year ago, who had fatty degeneration of the muscles of the leg.

With regard to the treatment proper to be adopted in cases of the incomplete form when the limb is in the bent position—in most books you are told to divide the hamstring tendons, but this is only necessary in the muscular form, or it may be necessary when the fibrous and muscular forms co-exist. The treatment of the uncomplicated fibrous forms is simple, and such as you have often seen me have recourse to in the hospital. The plan is to bring the limb into the straight position by forcible extension, under the influence of chloroform; a good deal of force is often required to effect this, and you often hear loud cracks as the fibrous bands and adhesions are ruptured. When you get the limb straight it must be placed on a long splint for a few days, after which it may be put up in a starch bandage and the patient allowed to move about.

In the congenital muscular form it is generally necessary to divide the hamstring tendons; in some cases you may succeed in bringing the leg straight, after a long process of splints and screws, but it is always doubtful. The outer hamstring is the one generally most affected; some little care is necessary in dividing them, especially the inner one, which is often in close relation to the popliteal artery. After having divided, then you may let the patient rest for two or three days, and then bring the limb straight as in the other form. When the disease is of the hysterical kind, it will be proper to use forcible extension and constitutional remedies, aloes, the shower bath, and such remedies as are calculated to relieve the constitutional disorder, and the same rule is to be observed in all cases where the disease is due to constitutional causes.

It might be thought that forcible extension would be likely to set up inflammation in the joint, but such is not found to be the case; the synovial membrane resembles the serous membranes in this respect, and they appear to undergo some change in disease which renders them less sensitive to causes that would in health produce inflammation. We know that in health we cannot puncture the peritoneum without danger of producing inflammation, but in disease, in dropsies for instance, it may be punctured time after time without producing any such result. The synovial membrane appears to become modified in a similar way during disease, and you may, therefore, extend the joints without danger; indeed it is astonishing what liberties we may take with a joint under such circumstances.

After having brought the leg into the straight position, it often happens that the head of the tibia is thrown a little backwards, and that the

end of the femur and the patella overhang the joint; in fact, there is a partial dislocation produced which would greatly interfere with the strength of the joint, the femur only resting on about half of the head of the tibia. This must be counteracted by a kind of boot, which you have often seen me use, and which by means of an iron bar and of continually acting screws, which are made to act on the anterior aspect of the thigh, and posteriorly on the tibia, the joint may, in the course of a few months, be brought into its natural position.

THERAPEUTICAL RECORD.

(*Philadelphia Medical and Surgical Journal.*)

Anodyne Mixture R. Chloroform, Tr. Arnicæ Tinct Camphor, Tinct Aconite *aa* oz. iv Sptl. Vin. Rect. oz. viij M. to be applied 3 or 4 times a day or internally 25 drops every 3 or 4 hours.

Diarrhœa Mixture.—Tannin, dr. x; Tinc. Opii Acet, oz. ij; Spts. Ammo. Arom oz. ij; Tr. Lav. Com. oz. vj; Aq. Camp., oz. xxiv; Muc Gum Acacia, oz. vj. The dose a teaspoonful every 3 or 4 hours.

Tonic Alt. Syrup.—R.—Rad. Sarsap. Cont. oz. xij; Rad. Sassaf. Cont., Lig. Guaiac rasp., Rad. Glycyrrh, *aa* oz. iij; Mezereon Cont., dr. vj; Dulcamara, Eupat'rii, *aa* oz. vj; Aqua Cong. 1. To stand 3 or 4 hours, then boil half an hour strain and mix with simple syrup, then add oz. x Hoffman's Anodyne and oz. ss, Ol. Galth, to each gallon. Dose, a tablespoonful 3 times a day.

Rheumatic Mixture.—R.—Tinc. Sem. Colchici, Tinc. Stram., *aa* oz. xvj; Tinc. Opii Acet oz. v; Tinc. Lav. Comp. oz. xij; Aqua Cinnam. oz. lxiv. M. A teaspoonful every 8 hours in those not so urgent.

Anti-Bilious Pills.—Ext. Colocynth Comp. dr. i, Ext. Jalapi grs. xx; Sub. Mur. Hydg. grs. xv; Tart. Antim. gr. 1; Pulv. Gamb. grs. iij; Ol. Cari'd grs. vj. M. In pil xxx div. Dose, one to four at bed time.

Vegetable Purgative Pills.—Ext. Colocynth Comp. dr. i; Ext. Jalapi sc. ij; Pulv. Gamboj. grs. iij; Pulv. Ipecac. grs. v; Ol. Anisi. gtt. vj. M. In pil xxx div. Dose, one to four at bed time.

Dyspeptic Elixir.—R.—Rad. Colomb. Cont., Rad. Gentian. *aa* oz. iv, Sem. Cardam oz. ij; Bi. Carb. Potass, dr. vj; Spts. Vin. Rect. oiss; Aqur. Pura. ovj. The articles are to stand in water 24 hours, stirring occasionally. Dose, one or two table spoonfuls an hour after each meal.

Fever and Ague Mixture.—R.—Sulph. Quinine dr. vj; Aq. Pura oj; Acid Sulph. sc. ij; Tinct. Gentian. C. Oiss; Tinc. Capsici Oss; Syr. Simp. Oj; Ol. Gaultheri gtt. xv; Alcohol Oj. M. Dose a tablespoonful every hour for six hours preceding time of chill.

Hooping Cough and Asthmatic Mixture.—Tinc. Lobelia oz. v; Tinc. Belladonna oz. iv; Chlorfm . oz. ij; Muc. Gum. Acacia oz. v; Aqua Pura. oz. ix. M. Dose, a teaspoonful every 3 hours.

Cough Mixture.—R.—Muc. Gum. Acaciæ; Syr. Tolu; Syr. Scillæ, Syrp. Ipecac, *aa* oz. vj; Tinc. Belladon. oz ij; Tinc. Lobelia oz. iij; Tinc. Colchici oz. iss: Vel. Tinc. Sem. Colchici oz. i. Spts. Nitre Dulci oz. iij. Dose, a teaspoonful every 3 hours.

Nervous Cordial.—R.—Quassia, Rasped, lb. iiss.; Rad. Valerianæ, lbs. iiss.; Artemisia Absinth. lbs. ij.; Rad Serpentaria, lbs., iiss.; Aq. Bulliet; Cong. vj. M. ft infusion, and add Tinct. Gentianæ; C. Cong. ivss.; Strychine, grs. cxx.; Acid Acetic oz. iss.; Tinct. Santal, oz. viij. M. Dose, a table-spoonful 3 times a day.

PERISCOPE.

On the inutility of depletion in syphilitic iritis. By John Hamilton,—Surgeon to the Richmond Hospital.

"I believe that in the treatment of syphilitic iritis, even the most acute cases, all that is necessary to be done is to administer mercury properly suited to the constitution of the patient, and the nature of the case, and till full salivation; and the application of the extract of belladonna round the eye, or of the solution of atropine in the eye. I totally disag ee with those authors—Mr. Tyrrell for instance—who recommend, in cases where the patient is broken down, to administer tonics, &c., till he is able to bear the mercurial course, the real fact being, that the best tonic is the mercury, combined with opium, which by expelling a depressing poison from the system, invigorates it, at the same time that it arrests the ravages of a destructive specific disease; whereas, while waiting for the effects of tonics and diet, the eye may be lost. There could not be apparently more feeble or depressed subjects than No. 3, Mary Byrne, or No. 4, John Callaghan, particularly the latter, who was literally nothing but skin and bone, with a pale sallow face, contrasting with the large red tubercles with which it was studded, and so weak he could scarcely stand; yet under the beneficial action of the mercury, while the eye was saved, his flesh, strength, and complexion, all became rapidly restored, so that in his last letter to me, he describes himself, in language more remarkable for strength than orthography, "as strong as a hoss, and as fat as a wheal!"

Many surgeons do not deplete, but the large majority still do, by leeches and cupping, rarely, I believe, in this country, by venesection, as recommended by Mr. Mackenzie. During fourteen years, a very large number of cases of syphilitic iritis have been under my care in the Richmond Hospital, and I have only cupped in one case; and with my present experience, I am sure if that case presented itself now, I should not do so. It is one of those practical questions best decided by facts. I have there-

fore, taken a few cases from my case-book, which will help to prove, I trust, that depletion is unnecessary in this disease.

1. James Prendergast, æt. 30, a labourer, October 30, 1844, ten weeks since contracted a sore near the orifice of the urethra, where there is still a small one, presenting the characters of superficial chancre. He took no mercury. A fortnight after the chancre, the anus became tender, and six weeks after a rash broke out. Nine or ten days after the eye became inflamed.

He has iritis of the left eye, marked by very great redness, particularly intense round the cornea; slight yellowness of the iris, compared with the blue-grey of the other eye; some dulness of the aqueous humour, and irregularity of the pupil at its upper margin. Suffers pain in the eyebrow, beginning at four o'clock in the evening, and keeping him awake all night. There is a rash of scurfy papules thickly scattered over the body; very extensive condylomata round the anus; two small white raised ulcers on each tonsil. To take two grains of calomel, and one-eighth of a grain of opium, three times daily.

Nov. 4. Mouth is sore, and became so yesterday. He has taken ten pills, and had a little griping yesterday. There is great improvement in the eye, which is nearly well. The redness much lessened; the cornea and aqueous humour clear. The iris has regained its natural appearance, except that there is still slight irregularity of the upper edge of the pupil. He says he can see nearly as well as ever. For the last two nights he rubbed in some extract of belladonna round the eye, and has had no nocturnal pain. Omit the pills.

Nov. 15. The iritis is now perfectly well; the iris bright, and the same colour as the other; the pupil regular as to size, but irregular at the upper edge; but so little that it would not be noticed.

He was kept under the influence of mercury, chiefly by frictions, for six or seven weeks, and left the hospital well some stains of the syphilitic eruption alone remaining.

2. *Double Syphilitic Iritis cured without Depletion*—Case taken by Mr. Frazer. Peter Craven, a labourer, æt. 23, admitted February 3, 1847, into No. 1 Ward, with iritis of both eyes. There is vascularity of the conjunctiva and sclerotic in both eyes. The pupil of the right eye contracted and irregular; the left pupil larger, and the inner circle more even. The irides naturally brown, have bright orange-coloured lymph deposited in them, chiefly round the inner ring. The tears run over his cheek, and light pains him. He has pain in the brow and temple, worst during the day. No pain in the balls of the eyes. Vision is a little dim in the left eye, and more obscure in the right. Aqueous humour clear.

On the abdomen, loins, thighs and calves of the legs, arms and fore-arms, are the drying scabs of small pustular eruption, in patches, leaving, where they have separated, small depressions. He complains of pains in the joints, and periostitis of the shoulders and sternum. The submental glands are enlarged. On the other surface of the penis, about its middle is a cicatrix the size of a half-penny, silvery, and without hardness.

He was infected about the end of August, (1846), and a month after admitted under Dr. MacDonnel. He remained in five weeks, when he was dismissed cured. A fortnight after the eruption appeared, preceded by headache, sick stomach, and shivering. The right eye became dim and red three weeks ago, and painful about a week since, when the left eye got bad.

Feb. 3d. Five grains of Hyd: c. cretâ, three times a day; extract of belladonna to be smeared round the eyes.

5th. the pupil of the right eye slightly dilated; vascularity of both eyes less.

6th. His mouth is sore. Omit the pills.

8th. No pain in the eyes; vascularity diminishing; pupils dilating, but very irregular: the irides regaining their clearness and natural colour, being less yellow; vision still dim.

9th. Eyes paler; the left pupil is now dilated, and presents a curious appearance, the inner circle being quite fringed with tags of lymph, to the number of twenty, where the adhesions had existed between the iris and capsule of the lens. To take a pill night and morning.

The improvement in the eyes was accompanied by equal improvement in the eruption and pains. The mercury was continued, either in the form of Hyd: c. cretâ., or small portions of mercurial ointment, to the 11th of March. He was dismissed quite well, and the eyes in every respect natural, on the 23rd March.

3. Mary Byrne, æt. 25, rather a delicate-looking woman, who had been infected by her husband several months before, and been in the hospital with syphilitic eruption for two months, under the care of Mr. Hamilton, with a slight attack of iritis. She left the hospital well, but returned in a fortnight, the iritis having relapsed, and become most acute, accompanied by a most alarming sloughing ulceration of the throat. She had been permttied to return home only on the condition of continuing the treatment, but neglected entirely to do so.

Dec. 30, 1856.—The right eye presents the appearance of intense ophthalmia; the conjunctiva very red and vascular; a pink zone round the cornea; intolerance of light; profuse lachrymation, and tumid eyelids. The iris is dull, of a greenish-yellow colour, with rusty specks of lymph

scattered over it. They are most numerous at the outer circle of the iris; but there is one large lump projecting at the lower and outer part of the inner circle, which is evidently the commencement of a tubercle. The pupil is contracted and irregular, rather of an oval form, and adherent at its lower margin to the lens, and also at its upper and inner edge. It is quite fixed. There is scarcely any sight. Pain in the eyeball, and in the brow and temple; becomes severe at night, but usually commences about three o'clock in the afternoon, gradually grows worse till twelve at night, when it ceases. The throat is very painful, the ulceration extending over the tonsils, and up the arches of the palate to the uvula; the surface covered with adherent ash-coloured sloughs. The adjacent parts intensely red and inflamed. A good deal of sympathetic fever; skin hot, pulse 94, full and hard; tongue white and loaded. She was put on five grains of Hyd. c. cretâ, with a quarter of a grain of opium, every fourth hour. Extract of belladonna to be smeared round the eye; and a solution of nitrate of silver, dr. ii to oz. i of water, to be applied freely over the throat

Thursday, Jan. 1st. The gums were effected, and the eye at once became less inflamed, the intolerance of light and the pain less.

Sunday, 4th. Redness much diminished, pupil dilated, and the rusty deposit of lymph is evidently undergoing absorption. The throat easier, its surface clearing, and small white sloughs separating, leaving a clean red surface beneath. Mouth fully affected for the last two days.

8th. Scarcely any vascularity of the conjunctiva or sclerotica; the tubercle nearly gone; she can bear the light, and vision is returning. After this she got quite well of the throat and the iritis; the only trace of the latter being some irregularity of the pupil at the lower and outer part, where the tubercle had been. This, Mr. Hamilton thought, would be permanent. She left the hospital about the end of the month, the Hyd. c. cretâ having been continued in smaller doses.

4. John Callaghan, æt. 24, transmitted into No. 4 Ward of the Richmond, from the Whitworth Hospital, February 26th, 1857. He is one of the city police, and was once a stout powerful man, but is now sickly-looking, sallow, and emaciated. A thickly scattered eruption of tubercles over the face, on the eyebrows, sides of the nose and chin. He became infected with syphilis about ten months ago, and has since suffered from pains in his bones, sore throat, and eruptions, with rapid decline of health and strength. He has taken mercury irregularly. Ten days ago the right eye became tender and inflamed, and quickly got very bad. His only treatment had been one leech and a blister to the temple, and bark mixture; but he had taken no mercury for a month.

The right eye is affected with acute iritis; the sclerotic of a deep dull

red, most marked round the cornea; the conjunctiva also is traversed by many large red vessels: the iris of a dull yellowish-grey, contrasting with the clear blueish-grey of the other eye; the pupil hazy and irregular, adhesion existing at the lower and outer rim, where the iris is of a dull reddish-brown, as if a tubercle was about to form there; the pupil is nearly as large as the other, perhaps slightly affected by the extract of belladonna which was applied last night; sight very much injured—though he can see me in a bright light at three feet, he cannot discern a feature of my face; intolerance of light, and some lachrymation; pain in the brow, extending to the eyeball and temple, begins at ten o'clock at night, and lasts till one o'clock, A. M. Submur. hydrarg: ℈i, opii gr. ii. in pilulas x.

Third day. Eye somewhat clearer; the deposition of rusty-coloured lymph appears less: not so much pain last night. He has taken eight pills, but no perceptible effect on the mouth, nor any griping. The belladonna has had no influence on the pupil.

Fifth day. The mouth is sore, and there is some griping. The eye is better, and he can distinguish my features, and the studs on my shirt. To take a pill night and morning.

Seventh day. Mouth fully sore; a very decided improvement in his vision, and the appearance of the eye; the iris clearing, and the rusty lymph absorbing; pupil clear and black, and the redness much less. He bears light much better; no nocturnal pain of the brow the last two nights; the eruption of tubercles on his face and body are fast disappearing.

On the twelfth day the eye was not so well, more vascular and uneasy —evidently an attempt at a relapse. By increasing the quantity of mercury for two days he got better; all traces of the iritis afterwards entirely disappeared.

On the twenty-second day, having been quite well for several days, he requested his dismissal, wishing to go to the country. I had a letter from him a few days since, saying that he had regained strength and flesh, that the sight of the eye was as good as ever, and no traces of the eruption existed. He had continued to take the mercury so as to keep up the mercurial action in the system, altogether for about ten weeks.

6. *Syphilitic Iritis of the right eye, cured by Mercury, without Depletion*—Case by Mr. M'Farland. William Quin, æt. 17, admitted March 12th, 1857, under Mr. Hamilton. About five months ago observed a small pimple on the prepuce, sometime after connexion, which broke and healed in a week. Six or seven weeks after, an eruption (syphilitic lichen) broke out over his body, and has remained ever since; at the same time his throat became sore. He got some pills at a dispensary, which slightly affected his mouth. His eyes were tender but the right eye became

so inflamed that he was admitted on the 10th into the Whitworth, from whence he was transferred to the Richmond Hospital.

The right eye presents the usual appearances of subacute iritis; the iris dull, of a dusky-yellow colour, as compared with the clear blue-grey of the other iris; the pupil *dilated* (though no belladonna has been applied) a slight adhesion at the lower edge; a pink zone round the cornea, and the conjunctiva vascular; some intolerance of light and lachrymation; little pain in the brow or temple, but the sight very misty. There is an eruption thickly covering his entire body, of small papules, in many parts scurfy and shining; whitish soddened ulceration over the right tonsil, adjacent part of palate, and uvula.

March 15th. He was ordered five grains of Hydrarg. c. creta, three times a day. On the ninth day after this he became affected with griping, and the mercury had to be discontinued for a day, and then resumed twice a day for six weeks, when he was dismissed quite well. He was one of those in whom mercury does not cause ulceration of the gums or salivation; and yet its beneficial influence was not less marked. As the eye got gradually better under its use, till all trace of the iritis had disappeared, including a band of lymph, which had extended from the lower margin of the iris to the capsule of the lens, it was curious that in proportion to the improvement, the pupil became less dilated, till it reached its natural proportions. He was rather slow in getting clearness of vision; when all other symptoms had gone, some imperfection of sight continued, like a cobweb before the eye, or between him and any object he looked at.—*Dublin Hospital Gazette.*

Menstruation, an Exfoliation as well as an Ovulation.—By *D. W. Brickell*, M.D., Prof. Obstet. N. O. School of Med.—"About six months ago, I was performing an autopsy in the dead house of the Charity Hospital. On an adjoining table lay the body of a stout young female, who was said to have died of disease of the heart She had died a few hours previously, and was still quite warm. The thorax and abdomen were laid open. The body had been abandoned, and curiosity led me to examine the internal organs of generation. The uterus and appendages had been cut from the pelvis, and the anterior wall of the organ had been laid open. The moment I saw the organs, I was struck with their being highly engorged with blood, and the uterus was considerably larger than usual. The pelvis was filled with blood, which had flowed from the vessels when the organs were detached. The next thing that attracted my attention was the most palpable specimen of *recent* corpus luteum in one ovary. The corpus was large and prominent, and the

depression on its centre, exhibiting the point of escape of the ovule, was evident beyond all cavil. In this same ovary one other Graafian vesicle seemed fully matured, the parts surrounding it being highly congested, but the ovule had not escaped. The other ovary was generally congested, but there appeared to be no mature Graafian vesicle.

But the most interesting feature in the case was the *complete absence of the lining membrane of the cavity of the body of the uterus.* The moment my eye alighted on the inner surface of the organ, I recognized the woodcut of Tyler Smith, in the May, 1856, number of the *Lancet* (Amer. edition), representing the inner surface of the uterus of a woman who died of apoplexy during the catemenial flow. Nothing could have been more striking than this resemblance; and if I had ever been sceptical in relation to the observations of the author, I was now bound to admit his accuracy. Down *to the os uteri internum* the mucous membrane was gone, and the inner surface of the organ rough, with innumerable blood-spots scattered over it. All *below* the os internum was smooth, and in every respect natural in appearance. The difference in sensation conveyed to the finger by touching the two surfaces was as palpable as the impression conveyed to the eye

"The only doubt now remaining about the case was, whether it might not be a uterus which had very recently been delivered of an early ovum. More extended examination, however, proved clearly that this was not the case. The vagina was very small, and its mucous membrane highly corrugated; and there was a well-defined hymen. To add to this the mammæ showed none of the changes generally produced by early pregnancy.

"The subject was, to all appearance, about eighteen or twenty years of age, and quite robust. She was the subject of anasarca to a considerable extent, and was said to have died very suddenly—her death being attributed to disease of the heart. I tried to get a more accurate history of her from the nurse of the ward in which she died, but, as is too often the case, she only knew that such a woman had been in the ward, had lived, and then had died.

"Tyler Smith says, 'According to my view, the mucous membrane of the uterus becomes excrementitious every month, and is discharged from the cavity of the uterus in a state of disintegration, and the uterus forms a new mucous coat, by a process similar to the reproduction of lost parts.' Coste and others speak of the exfoliation of the mucous membrane of the uterine cavity under certain circumstances; but, so far as I am aware, Tyler Smith is the original advocate of the theory above laid down. After reading all the observations I could procure on this inter-

esting subject, I was altogether inclined to adopt this theory, and the case I have thus inscribed only the more strongly tends to prove its correctness."—*N. O. Med. News and Hosp. Gazette*, Feb. 1857.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

OUR NEW VOLUME.

The subscribers to the Medical Chronicle, those who from the commencement have given us a hearty support, must be exceedingly gratified with the marked improvements which Mr. Dawson has introduced into the fifth volume. The paper on which the journal is now printed is fine English, and not surpassed, if indeed equalled, in quality by that of any medical journal on the Continent of America; it has also been increased in size by eight additional pages, while the subscription price is still kept at the very small and unremunerative amount of *Two Dollars per annum*. When the Chronicle was first issued, a considerable number of copies were returned by gentlemen from whom we expected better things than the refusal to give ten shillings yearly for the support of a medical journal in the Province, more particularly when they were getting what we humbly considered full value for their money. The reason of their refusing to subscribe, however, may have arisen from the doubts which were naturally entertained at the time regarding the success and stability of any enterprise of the kind. As we have entered on the fifth year of our existence, there need be no apprehension of our speedy demise. We hope, therefore, that every one of our professional confreres, both in Canada and the Lower Provinces, to whom Mr. Dawson has sent a specimen copy, will not only become a subscriber, but what is of equal or even greater importance, a regular contributor to our pages. In its present form, at its present subscription price, the Journal cannot possibly remunerate the publisher unless additional names are added to the list of subscribers, and all attend as far as possible to the terms specified on the cover, viz., "*payable in advance.*"

All original communications intended for the columns of the Journal, must be addressed to the Editors. All communications relating to the business of the Journal, to be addressed to the Publisher, B. Dawson, No. 23 Great St. James Street, Montreal.

CANCER CURERS.

Whenever a disease is pronounced by the profession incurable, or even difficult of cure, it is immediately adopted by the quack, and employed by him as a means wherewith to deceive a too credulous public. Cancer and phthisis appear to be the favorite affections of the horse-leech fraternity; for curers of cancer and curers of consumption abound in this and other countries, where they invariably flourish for a limited period. That they succeed at all in attaining notoriety is to be attributed to the fact, that there is a widely-spread and fearful dread existing in the community regarding these two diseases, and it needs only that a female should have a slight and limited induration of the breast, or a simple cough, to excite in the minds of herself and friends the greatest apprehension as to the final result. The person, moreover, who boldly announces that he possesses an infallible cure,—that he holds, as it were, the issues of life and death in his own hands,—knows his own interests too well, when called upon for an opinion, to do otherwise than favor the most gloomy and hopeless view taken of the case, certain that when, in the one instance, the hardness is removed, and, in the other, the bronchial irritation subsides, his name will be trumpeted abroad as a successful practitioner in malignant or fatal diseases. Failures however soon appear, and becoming more and more numerous, they finally force themselves on the notice of the public; and when this point in the quack's career is reached, it is really astonishing how rapid is his descent. A few months suffice to change his position entirely. Instead of being the highly lauded of inconsiderate admirers—the great be-puffed of the public press—his name is scarcely ever mentioned except in execration, and his flaming advertisements fail to call forth the slightest notice from "we" of the editorial chair. The crowd of eager faces that were wont to be seen at his morning levée, are now no longer there, and a desolate quietude reigns in the dispensing and consulting rooms. The cheerful ring of the glittering coin of the realm which fell on his ear and gladdened his heart, as he transferred the broad pieces from the pockets of his dupes to his own plethoric purse, is heard no more; and at length he wakes to the disagreeable consciousness of being thoroughly known and appreciated, and forthwith departs to play his game over again in other and foreign parts.

The profession have lately been interested in investigations made by certain authorities into the virtues of two modes of treatment of cancer, stated by their originators to be eminently successful. The first investigation was held on a treatment proposed by Landolfi. His mode of treating cancer having obtained a favourable reception in Austria, he

was desirous of securing the endorsement of the French Surgeons as to its efficacy, and visited Paris accordingly. The Imperial Academy of Sciences appointed a commission, consisting of M.M. Broca, Cazolis, Furnari, Manec, Mounier, and Moissenet, to examine the subject thoroughly and report on it. A certain number of patients were allotted to M. Landolfi at the Salpetriere, and the results of his treatment were closely watched. The committee reported most unfavourably. His internal treatment, which consisted of the administration of chloride of bromine, did not "possess the slightest special therapeutical value in the treatment of cancer." The local treatment consisted in the application of a caustic, which was nothing more than Canquoin's paste, disguised by the addition of a coloring and odorous substance. It was composed of chloride of bromine, 3 parts; chloride of zinc, 2 parts; chloride of antimony, 1 part; liquorice powder, 1 part. "Of these substances," say the commission, "the chloride of zinc and chloride of antimony have been long known and employed as caustics. These two chlorides combined in the same proportion as in Canquoin's caustic form the only portion of M. Landolfi's preparation that is really active. To sum up, his method can only be applied to certain cancers; it is more painful and more uncertain than several other modes of cauterization; and it is, in particular, inferior to Canquoin's method, of which it is only an altered copy. Like all the other methods of treatment, it may succeed in destroying certain tumours, and cicatrization may follow; but it is quite powerless for the prevention of relapse, which it would seem rather to provoke, and so far from forming a step in advance, it adds but another to the illusions that so abound in the history of cancer."

M. Landolfi treated nine cases of cancer of the breast and three cases of cancroid with the following results:—Of the 9 cases of cancer of the breast 2 died, 4 suffered a notable aggravation of the disease, while in 3 cases, in which cicatrization took place, the disease immediately reappeared,—so that the nine cases were unsuccessful. Of the 3 cases of cancroid, 1 was cured, 1 cicatrized, but the disease reappeared, and in the third an exacerbation took place that necessitated the amputation of the limb. The application produced excruciating agony, for the relief of which opium and other narcotics were altogether powerless. So much, then, for M. Landolfi's mode of treatment; and come we now to notice the pretensions of the second aspirant to the honor of cancer-curer *par excellence*.

We have observed in our English exchanges for some time back remarks on the advent of an American physician in London, named Dr. Fell, who professed to have discovered a plan of treatment whereby

cancer could be cured. He was allowed to treat a certain number of patients in the cancer ward of the Middlesex Hospital; and in the London Medical Circular for June 10th we perceive that he has recently issued a work on "Cancer and its treatment," and that the Surgeons of the Middlesex have reported the conclusions they have arrived at, after witnessing his peculiar mode. Dr. Fell believes that Sanguinaria Canadensis possesses certain wonderful properties, which, when the drug is administered internally, and applied externally to a cancerous tumour, will cause the enucleation of such tumour and cure the patient. Strange to say, however, the doctor finds it necessary to mix the sanguinaria with chloride of zinc whenever he applies it externally. The following is his formula: ℞ Sanguinariæ Canadensis, ℥ ss. vel. ℥ i.; Chlor. Zinci, ℥ ss. vel. ℥ ij.; Aquæ, ℥ ij.; Pulv. Sem. Tritic. Hibern., q. s. Mix, and form a paste the consistence of treacle. Now is this not a miserable insult to the profession? To attempt for a moment to impress them with the belief that the caustic effects of this paste are due to the presence of bloodroot instead of chloride of zinc, is certainly most absurd. Sanguinaria has been employed topically as a stimulant in indolent and ill conditioned ulcers, but it does not possess the caustic power of chloride of zinc.

The Surgeons of the Middlesex Hospital report as follows:—

"The undersigned have great pleasure in now stating that Dr. Fell has fulfilled the obligation contracted by him frankly and without reserve; and whilst they regret that the limited period which has elapsed since the treatment in the hospital was commenced (January 22nd) prevents their coming to any positive conclusion upon certain points of great importance, they have yet no hesitation in stating their unanimous opinion—

"I. That Dr. Fell's mode of treatment is in entire accordance with known principles of surgery, is ingenious, safe, and easy of application by well-instructed surgeons.

"II. That it may be employed in all cases in which surgeons use the knife and in many others in which no prudent person would recommend a cutting operation.

"III. That Dr. Fell confines himself to the enucleation of the tumours merely; and, in the case of the breast, does not remove the entire gland, as is commonly considered necessary in the excision of the mammary cancers in this country.

"IV. That it is a great advantage attending this mode of treatment that the patients are not confined to bed or to the house; but that, on the contrary, they are able to obtain the benefit of exercise in the open air. In some instances their health has manifestly improved during the treatment.

"V. That the patient being exempt from the *immediate* hazards of a cutting operation such as exhaustion and hæmorrhage, and being able to pursue the treatment without confinement to bed, they appear little prone to such constitutional affections as erysipelas and pyæmia.

"VI. That the enucleation of the diseased mass is succeeded by a healthy granulating and cicatrizing surface. From the inspection of Dr. Fell's private cases of longer duration than those in the hospital, the undersigned have had opportunities of observing that healthy cicatrices are eventually formed.

"VII. That all the patients have suffered pain during the treatment; some have spoken lightly of their sensations, others have complained much. No one, however, has sustained that acuteness and severity of pain which characterises the action of caustics as ordinarily employed; and it has been observed that the pain which has been felt has usually been referred, not to the tumour itself, but to parts at some distance from it, as, in the case of the mamma, to the shoulder and arm.

"VIII. That, although the treatment is less expeditious than that usually resorted to, yet, taking account of the average time that elapses before a patient has completely recovered from a cutting operation, it is probable that the difference between the two modes of treatment, in point of expedition is by no means great.

"IX. That the undersigned have not as yet had time to ascertain the average duration of the benefit conferred by the treatment, nor have they any means of knowing whether, in the event of a return of the disease, there be any difference observable from what is known to take place after excision.

(Signed) "Alex. Shaw.
Campbell De Morgan.
Charles H. Moore.
Mitchell Henry."

In the foregoing nine paragraphs the Middlesex authorities merely state that the tumour can be enucleated, and that the application of the caustic induces pain. What else could they say if they were speaking of chloride of zinc paste simply? They have not ascertained whether there is a liability to a reappearance of the disease. This is a very serious omission, and makes their report a mere bagatelle, that will excite the smile of every practical surgeon.

Late Case of Stabbing.—"An inquest was held at the Military Hospital on the body of lance-Corporal Richard Reynolds, aged 20, of Her Majesty's 39th Regt. of foot, who was stabbed in the abdomen, on Thursday, the 14th of May, by Private William Jones, of the same Regiment.

It appears that on the day in question, the deceased, accompanied by an escort, went to the bush at Logan's Farm to arrest the prisoner; after some trouble they succeeded in doing so, and brought him to the barracks, in a cab, handcuffed. While getting out of the cab at the guard-room gate, the prisoner seized hold of a musket, with a bayonet attached, and threw it at the Corporal, which caused a wound in the abdomen, of

about half an inch long, and one-eighth of an inch broad. On the following day, (Friday,) intense inflammation set in, which resulted in the death of the deceased on Saturday night, about 12 o'clock.

Dr. A. F. Holmes and Dr. John Ross, Assistant Surgeon of the 39th Regiment were sworn, and after the jury had examined the body, directed to make a *post mortem* examination.

John Ross. M. D., examined: The deceased was brought to this hospital on the evening of the 14th instant, about half-past eight o'clock. When stripped, we found a small wound about half an inch long at the bottom of his abdomen. I saw the wound next morning about nine o'clock. He then complained of severe pains in lower parts of his bowels. Found intense inflammation had set in. I treated him in the usual way. He died close to midnight on Saturday last. Have made a *post mortem* examination. The wound was only about half an inch deep. It was a puncture about half an inch deep. There was a great effusion of blood on the walls of the abdomen, the result of a severe contusion. We found the marks of severe inflammation on the membrane of the bowels. This inflammation was the result of the contusion and wounds which caused his death. The deceased stated to me that Private Jones had thrown a musket at him, which caused the wound. Perfectly satisfied that death was caused by the effects of this wound.

Dr. A. F. Holmes corroborated the evidence of Dr. Ross, as regards the *post mortem* examination, and as to the cause of death.

Dr. Woodman, Surgeon of the 39th Regt.—I was present when deceased was brought into the Hospital to my room, on Thursday night about 8 o'clock. Told me he had been wounded by a fixed bayonet thrown at him. Examined him, and found the wound to be very superficial. There was no blood flowing at the time. He complained of pain in his abdomen. I questioned him about the wound, and where he was standing. Considering the wound so very slight, I told him he had better have some plaster put on and return to his duty. He went to the Hospital to have this done, but in a few minutes the Sergeant returned to tell me he had fainted, and I then feared he had received more severe injury. I then ordered his detention in Hospital. About half an hour after Dr. Humphrey arrived, and examined deceased. The Coroner summed up, and the Jury, after about half an hour's deliberation, returned a Verdict of WILFUL MURDER against the Prisoner.

We should state that the Jury were divided in opinion—12 were for a verdict of Wilful Murder, and two for manslaughter."

London and Parisian Hospitals.—"From an interesting report of the Committee of Beneficent Institutions, it appears that London and Paris present a striking contrast in the methods which they adopt for affording relief to the sick poor. In London, a great part of our medical relief is dispensed at the houses of the poor themselves by the physicians and surgeons attached to our dispensaries. In Paris, on the contrary, comparatively little relief is afforded otherwise than in the hospitals themselves. Thus, in the year 1853, the number of in-patients in hospitals in Paris amounted to no less than 91,754, against only 45,808 in hospitals in London—this calculation, in the case of London, being exclusive of patients treated in workhouse infirmaries. But, on the other hand, under the system of out-door medical relief recently set on foot in Paris, 102, 472 persons received gratuitous attendance, against upwards of 600,000 patients similarly relieved in London. The nearest approach to a fair comparison between London and Paris which it seems possible to make is that afforded by a statement of the sums contributed by the medical charities and poor-rate taken together as follows: In London, income of medical charities and poor relief, £1,150,900,; in Paris, expenses of l'Administration Générale, £560,853."

CORRESPONDENCE.

A STUDENT'S LETTERS.

No. I.

In penning these few lines I may commence by stating what is a student's best plan, when he intends leaving Montreal to spend a short time in the Metropolis of England. He will find no trouble in travelling between the two places, as every thing will be found quite comfortable, particularly on board the ocean steamers. When arrived at his destination he must decide upon what branches he is to follow, and as he has already fully studied the four primary branches, Anatomy, Physiology, Chemistry and Materia Medica, and also, most probably, the final branches likewise,—I think the best plan (which I have myself followed) is to attend those lectures that are not given as a separate course in Montreal, viz:—Botany, Pathological Anatomy, the use of the Microscope, &c., as taught in the lectures on Practical Physiology and Histology, Practical Chemistry, and if he thinks fit Comparative Anatomy, and the lectures on the Eye. There will still be plenty of time to attend the Hospitals, which is the great aim, even when attending a requisite number of the preceding lectures, which I may state "en passant" are only delivered in London during the months of May, June and July.

The best way to accomplish this object is to get the student's number of the *Lancet* which will give the names of lectures, days and hours of delivery, and price of each, in the 13 different Medical Schools of the Metropolis. He can board in two ways, either by staying at an hotel, which is very expensive, or by taking a suit of apartments which he will get for from 14s. to 20s. a week, well furnished in every thing requisite, and then get meals at an eating house, where he finds it handy according to the part of the city he may be in. This is the manner in which very many live here, and they find it most convenient.

A word as regards Hospitals. There are operations here at some of the different hospitals every day in the week, except Sunday, and in the greater number he will have a choice of two or three, and on Saturday of four. It will be found difficult to get a ticket for the surgical practice at any of the hospitals for less than six months, and for which he will pay 10 guineas, and the same sum for the medical practice, if taken separately, or 15 guineas for both. My view of the case is that as Students come here to see Practical Surgery, not generally stopping for more than two or three months, it is the better plan not to attend any hospital in particular, as in that case the operations you see would be confined to that one alone; but to see operations chiefly every day, as there appears to be no restriction about attending the theatre (as it is termed.) If you mention that you are from Canada you are received with every respect; you by this means see practice, and it is for this purpose you come here. I, for the most part, attend the operations of five hospitals in the week, and you may frequently attend two in one day, the one at 1, the other at 2 o'clock, P. M. You seldom see less than two cases, and very often three, four and five, at each hospital, generally attended.

I shall make a few remarks on a class which I think should be established at Montreal, viz:—Practical Physiology and Histology, and I shall describe it as taught by Dr. G. Harley, University College. The subjects treated of are—The structure of the healthy tissues and organs of the body. The changes which the textures undergo in the diseased states most commonly met with. The chemical examination of the fluids, viz:—blood, bile, urine, milk, &c. And demonstrations in experimental physiology, such, for instance, as an illustration of the development of the ovum by artificial incubation, &c. Each student is furnished with a microscope and apparatus for which he is responsible, and it is at his command when he wishes it, but he must remain in the lecture room which is always open. Each microscope has two powers, 1 inch and $\frac{1}{4}$ of an inch, and two eye glasses, giving powers of 40 and 220, or 80 and

350 diameters. Each student is required to draw what he sees before him in the field of the instrument, and the sketch is corrected, if wrong, when the Professor comes round. I may state here "en passant" the best way to examine crystals with the microscope. Take crystals not too large for the field of the glass, place them on the glass plate, and a drop or two of a liquid, water will not do as it dissolves them generally. The best fluid by far is the saturated mother water from which they have been formed, or a liquid in which they are insoluble, then put the small thin glass cover over it, and use the lowest power to commence with, and then gradually pass to the highest. By this means you find which power answers, best for your particular specimen.

I shall conclude this communication with a few words on the following simple experiment, which I saw at our practical physiological lectures and can be performed by even the most unskilful hand without difficulty, and will serve to print on his memory several facts in physiology, (which are in general thought only to be proved by those men who devote all their time to such pursuits,) more firmly than weeks of reading. It shows, 1st. That the liver, as proved by Bernard, has the power of forming sugar, when only animal food is taken. 2nd. That what we see in certain diseases, viz., venous regurgitation, is only an exaggeration of a natural phenomenon, existing both in arteries and veins. 3rd. That the pause in the contraction of the heart is between the two contractions of the auricle and ventricles, and the next two following. 4. How sudden the action of the auricles is compared to the ventricles; their very sudden contraction and dilatation, and continued dilatation, and also for what a long time they keep up their action after cessation of either ventricle. 5. How irritation of the phrenic nerves causes contraction of the diaphragm, and when they are cut in two, that irritation of the distal extremity causes contraction, and when the central is touched no effect is produced. 6th. The lacteals conveying the chyle towards the receptaculum and passing through the glands. 7. How the vermicular motion of the intestines is carried on during life, and after this has been observed if you irritate one part, it will cause action through nearly the whole length of the canal; also how the action of the distinct sets of muscular fibres proceeds separately, one contracting the circular dimensions more than half, and then the tube appearing to grow shorter when the longitudinal fibres act. The intestine itself becoming quite rigid. 8th. The particular action of these sets of fibres in the large intestine. 9th. The natural movements of the stomach, and that irritation does not produce so sudden effects as in the intestines, but very slow first, one set of fasciculi and then another, shortening until every irritated fibre is contracted, and

then again slowly relaxing, if this be performed near the pyloric orifice; the duodenum or commencement of the intestine will quickly act from the excitement and the fibres of the stomach not for some time afterwards. I may also state that you can find sugar in the urine likewise, that other circumstances may be noticed, but they are not worth the while mentioning.

Take a puppy of about one month old, and to prove the first experiment mentioned, be sure that it has always fed on an animal diet. It must be sacrificed by pithing, namely, put the edge of the common flat pointed awl, if no better instrument be at hand, behind the occipital protuberance, care must be taken not to direct it towards the brain, and when it has passed through the medulla oblongata, work it laterally across the canal, so that the medulla is divided, the animal dies instantly, but all the extremities are moved convulsively from the irritation, and to stop this if you think fit direct the instrument down the canal, and destroy the chord when they cease. This being done, let an assistant take hold of the fore, and another the hind legs, and open up the animal by a longitudinal incision from the neck to the pubis. Care must be taken not to wound the intestines, because if so you cannot see their natural motions so well; then open the chest as is usually done, and expose the heart, and in doing so you will see the natural contractility of muscle, when you cut the pectoral muscles. Having done so, you will find the heart still acting naturally, and by examination will perceive what I have described under sections two, three and four, namely, that during the contraction the impulse is communicated to the arteries and veins, &c., &c., which being done you may perform experiment 5 by irritating the phrenic nerves if the diaphragm be not too much injured, as it is not likely to be with care in manipulating. By looking closely you will be able to see the lacteals, as little white vessels resembling nerves and quite distinct. I may state, however, to do this the animal should have been killed shortly after taking a full meal. Next do as stated in 7 and 8, but first watch the intestines closely to see their natural actions of contraction and their several movements. Then part 9 can be performed as regards the stomach, by proceeding in the same way, first watching the natural action. Now as to the first experiment with the liver, tie the portal vein to test the portal blood for sugar, likewise if you choose cut the organ into very small pieces, or bruise it in a mortar, have a dish at hand full of boiling water, then add the liver when thus prepared, by this means you get a colorless solution, whereas if the water were cold when it was added, and then boiled, all the coloring matter would be dissolved out, with the blood proceed in a similar way. Then filter and apply the tests.

I will just say a few words about their application. Have the test tube about one-third or one-fourth full, and boil the top of the fluid, first by applying the heat at the surface, by this means you can see the change produced by heat as compared to it primitively, which at the bottom of the tube will not yet be in the least acted on. This is the better way undoubtedly, because when the colors may not be very marked you will not be able to detect slight changes, so readily when the whole contents are boiled at once. You may then boil the whole if you choose. Treat the urine in the same way by the liq. potass. or liq. potass. and sulphate of copper, but only add a few drops of each in either case. It does not require any previous preparation, except taking care that no blood gets mixed with it, when removing the bladder. I forgot to state that a few drops of acetic acid should be added to the boiling water, before the liver is added to neutralize any alkali which it may contain, but take care not to add too much, or it will dissolve out coloring matter.

A. R.

London, England, 29th May, 1857.

HOSPITAL RETURNS.

Monthly Return of Sick in the Marine and Emigrant Hospital, Quebec, from the 30th April to the 3rd June, 1857.

	Men.	Women.	Children.	Total.
Remained	11	15	2	28
Since admitted	95	8	3	106
	106	23	5	134
Discharged	34	15	2	51
Remaining	72	8	3	83

DISEASES.

Fever	2	Ulcers	1
Inflammation of lungs	4	Wounds	1
Inflammation of liver	2	Contusions	9
Dyspepsia	1	Ophthalmia	2
Rheumatism	10	Pregnancy	3
Dysentery	3	Feb. Intermit	3
Small Pox	1	Subluxatio	1
Cynanche	2	Hypochondriasis	1
Diseases of skin	3	Hypertrophy heart	1
Inflammation of testicle	1	Scarlatina	6
Syphilis	23	Catarrhus	6
Fractures	2	Periostitis	1
Abscess	10	Phthisis	1

C. E. LEMIEUX,
House Surgeon.

MONTREAL DISPENSARY ANNUAL REPORT.

From 1st May 1856 to 1st May 1857.

Patients admitted, 414:—Attended at their own residences, 24. Patients discharged,—cured, 204;—relieved, 209;—died, 4,—sent to Hospital, 1.

Ages.—Under 2, 36; from 2 to 8, 49; from 8 to 20, 63; from 20 to 40, 131; from 40 to 60, 98; over 60, 37.

Diseases and Accidents.

Febricula	1	Dysenteria	6	Syphilis consec	2
Febris Com. Cont	4	Dyspepsia	28	Ecythyma	1
" Intermitt	1	Enteritis	1	Eczema	4
" Remitt	1	Flatus	1	" Chron	1
Rubeola	1	Gastralgia	3	Erysipelas	2
Scarlatina	1	Gastrit Chron	1	Erythema	2
Vaccinia	1	Gengivitis	1	Herpes Circin	2
Varicella	7	Helminthiasis	14	Intertrigo	1
Variola	1	Infl. Glandul Sub	1	Lepra Vulg	1
Rheumatism	9	Odontalgia	2	Lichen tropic	2
" Chr	4	Cephalagia	1	Maculæ	1
Pleurodynia	2	Cerebri Congest	1	Pediculi	2
Cachexia	2	Chorea	1	Porrigo	3
Debilitas	4	Delirium Tremens	1	Prurigo	1
Marasmus	1	Ebriositas	1	Psora	3
Scrofulosis	1	Epilepsia	3	Psoriasis Palm	1
Ascites	2	Hemiplegia	2	Tinea Favosa	1
Hydrops Scarlatin	1	Hyphocondriasis	4	" Capitis	10
Irritatio	21	Hysteria	1	Ophthalmia	2
Asthma	2	" Epileptic	1	" Scroful	1
Bronchitis	18	Megrim	2	Palpebr Carcin	1
" Chron	14	Melancholia	1	" infr. ulc	1
" Asthenic	1	Neuralgia	2	Cophosis	1
Catarrhus	22	Neurosis Incert	2	Abscessus Chron	1
" Chron	3	Paralysis	1	Ambustio	2
" Senil	3	Tic Doloureux	1	Contusio	8
Laryngitis Ædem	1	Vertigo	1	Fractura Radii	2
Pertussis	1	Anuria	1	Furunculus	2
Phthisis Pulm	35	Hœmaturia	2	Luxat. Cubit	1
Pneumonia	1	Nephralgia	1	" Sub. Verteb dors.	1
Aphthœ	1	Amenorrhœa	3	Periostitis	1
Cholera Infant	5	Leucorrhœa	4	Phlegmon	1
" Canadens	3	Mammœ Absc	1	Porticollis	1
Constipatio	19	Mastoitis	1	Tumor	2
Cynanch Parotid	1	Mutatio Vitœ	1	" Malign	1
" Tonsill	4	Prolapsus Uteri	1	Ulcus	5
Dentitio	8	Vaginitis	1	" Phagaden	1
Diarrhœa	21	Balanitis	2	Vulnus	5
" Chron	1	Syphilis Primit	2		

Diseases proving fatal.—Bronchitis Asthenic 1, Hemiplegia 1, Marasmus 1, Phthisis Pulm 1.

Attending Physicians, January, April, July and October, Drs. Boyer and Wright. February, May, August and November, Drs. Jones and Peltier. March, June, September and December, Drs. Fenwick and R. P. Howard.

MEDICAL NEWS.

An advertisement appeared in one of the Boston papers of April 8th, which ran thus :—"Wanted a gentlemen or lady with a natural tendency for the practice of medicine."—Dr. Miller, of Providence, R. I. recently recovered the sum of $2,500 of Orville S. Balcomb, of Attlehoro', for damages suffered from a collision with the plaintiff's carriage. The amount of damages claimed was $10,000.—The Third Annual Convention of American Dentists will be held in Boston, on Tuesday the first day of August next.—A Statute exists in an American Institution declaring a professor no longer qualified to teach, on arriving at the patriarchal age of 65.—A lady died suddenly in Richmond, Va., from the bite of a spider. She was bitten on the cheek the night before the fatal event.—A celebrated Oculist in Paris lately, as an act of charity, fully restored sight to a blind man by operation. In a few days the restored sued the Dr. for destroying his profession as a blind man, and laid the damages at 20,000 francs.—The great Boerhaave was more proud of his success as a flutist than of his scientific glories.—Orfila in place of becoming the founder of modern toxicology, had well nigh turned his magnificent baritone voice to profit on the stage.—Dr. Goadby has dissolved his connexion with the Medical Independent in consequence, it is alleged, of other engagements.—A Vicar once asked his Veterinary Surgeon how it was he had not called upon him for his account. Oh said V. S. "I never ask a *gentleman* for money. "Indeed," said the V. "then how do you get on if he don't pay?" "Why," replied the V. S. "after a certain time I conclude that he is not a gentleman, and then I ask him."—Liebig has analysed the bread sent to him from Hong Kong, and has found it to contain a quarter gramme of Arsenic for every fifty grammes of bread, or more than sufficient to cause death ; it had been mixed with the dough.—Animal and vegetable substances may be kept for a long period, perfectly free from decomposition, when immersed in glycerine.—An Iebriate Asylum is about to be founded in New York : collections in aid of it have already been raised to the amount of $32,000. The total amount to be raised is $50,000.—A woman was lately delivered, says the Wolverhampton Chronicle, of two dead children, who had grown together, and were united at the lower part of the stomach.—Mr. Erichsen, Professor of Surgery, in Univerity College, London, has been appointed Dr. Lees' reader in anatomy, in the University of Oxford.—A Dentist has been lately elected to St. George's Hospital, London ; the *lucky* gentleman is a Mr. Vesey, of Bond Street ; he was selected by ballot from six candidates.

THE

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ORIGINAL COMMUNICATIONS.

ART. VII.—*On the Treatment of Contracted and Stiff Joints.* By ROBERT L. MACDONNELL, M.D., Licentiate of the King and Queen's College of Physicians, and of the Royal College of Surgeons, Ireland; Surgeon to St. Patrick's Hospital, Montreal. Formerly Lecturer on the Institutes of Medicine, and on Clinical Medicine, University of McGill College, &c.

The attention of Surgeons has lately been directed to the means of remedying the deformities that result from anchyolsis, and very satisfactory statements have been advanced in favor of the plans of treatment recommended. Though it has been well known that practitioners who devote themselves exclusively to orthœpodic surgery, have met with great success in this branch, it has been thought, that the processes by which these results were obtained, were so complicated, tedious and difficult, that the general surgeon could not conveniently carry them out.* It

* Mr. Erichson has recently published in the *Lancet* for Nov. 10th and 17th, 1855, some excellent observations on the above subject, with illustrative cases. In the short article devoted to anchylosis (fifty-six lines,) in his work on Surgery, published in 1853, he appears to have had no practical experience on the subject, and what he says upon treatment is extracted from Mr. Tamplin's useful little treatise. Most of the cases published in the *Lancet* were treated during the previous twelve months. It is to be hoped he will devote his talents to this branch of surgery on which we still require so much information.

is with a view of showing what can be done in the wards of an hospital, and in private practice, in restoring to their functions, limbs considered useless, by means within the reach of the general surgeon, that the following cases are detailed. And I would here remark, that the instruments and means used by me were extremely simple, and that in their employment I do not lay claim to a greater amount of mechanical skill, than falls to the share of most practitioners who are acquainted with the anatomy and pathology of the parts engaged, and who have clear notions of what is expected from treatment. I need not remark that the present observations apply to those cases in which the anchylosis depends upon fibrous and fibro-cartilaginous bands, and alterations in structure of the normal constituents of the joints, and not to true bony union,—though until a recent period, the patient was, in both forms of the disease, allowed to pass through life with a useless limb, or rid himself of the incumbrance by submitting to its amputation.

It is true, that the treatment requires much patience, care, and management; that we are sometimes disappointed when we most expected success, and successful where we had but little hope of proving serviceable; in some cases, the improvement is slow, in others, surprisingly quick; and this uncertainty will attend our practice so long as the actual pathological condition of the joint, and its surrounding structure is enveloped in so much obscurity, for I believe it accords with the experience of most surgeons that we cannot always state, in cases of long standing, presented to us for the first time, whether the greater amount of disease is to be found on the articulating surfaces, or in the enveloping structures. The duration of treatment will also depend upon the actual stage of the disease; if inflammation be still active, of course we cannot proceed as rapidly as when it has disappeared, or should it be awakened by our treatment, we shall require more time than if it did not present itself at all. The willingness or disinclination of the patient to assist us, will also exercise an important influence on the success of the treatment adopted, and the co-operation of the patients relatives, in the case of young children is almost indispensable. As most of the points now alluded to will be illustrated by the following cases, I shall not occupy more time by dilating upon them.

Case I.—*Contraction of Knee Joint—Rapid Extension—Treatment successful.*

A man aged 23, of slender make and delicate appearance, was admitted under my care into St. Patrick's Hospital, March, 1853. The right leg was bent at an acute angle upon the thigh, the result of chronic dis-

ease of the knee joint, there was no dislocation. As he was very anxious to return to the country, I had an instrument applied at once, and found that considerable extension could be made without giving any pain beyond what he could easily endure. A sensation as if some tough membranes were gradually giving way, was evident to the patient and to myself. He was directed how to manage the instrument, and very soon, by extension alone, the leg was stretched so as to allow the descent of the heel to the ground. During the treatment, the knee was kept surrounded by a wet bandage, and the patient was encouraged to walk about the wards, whilst the instrument was applied. Being anxious to go to the States he left the hospital as soon as the above results were obtained. I advised him to wear a small slightly bent splint, fitting into the popliteal space, for some months after his return home.

In this case I was obliged to act with greater promptitude than I should have liked, yet the result was most satisfactory, for he remained only a fortnight in the hospital. An instance is recorded by Mr. Tamplin, where a patient dreading expulsion from the hospital, for having resisted the surgeon in his efforts at extension, screwed up the instrument during one night to such a degree that he stretched the leg to the right position, from being bent almost at right angles with the thigh. In this case the tendon of the biceps was supposed to have been snapped across, by the forcible extension employed.

Case II.—*Contraction of Knee Joint—Partial dislocation backwards of Tibia—Rapid Extension.*

A boy aged 12, of healthy appearance, was admitted into St. Patrick's Hospital under my care, March 10th, 1857.

He had suffered for the three years previous from disease of the left knee joint, which had ended in suppuration, and discharge of matter from one large orifice at the upper and inner side of the patella. There was no fluctuation in the joint, which was distorted from contraction of the leg backwards, with partial dislocation of the tibia in the same direction, there was a good deal of pain in the joint, and the least shock to the limb augmented very much his sufferings. He could hardly allow me to touch the limb. By rest, the internal use of cod liver oil, and iodine solution, and the constant application of a well adjusted wet bandage, all pain had disappeared at the end of a month, and I was pleased to find that I could move the leg, and handle the joint, without any uneasiness to the patient. Seizing upon this favorable opportunity, I applied an extending apparatus, and stretched the leg gradually, almost to a straight position. The patient suffered so little annoyance that he

could bear the stretching for six hours without a murmur. On my next application of the instrument, I had the joint surrounded with cotton wadding, and whilst the limb was kept extended, I applied a starch bandage around the joint, so that when the apparatus was removed at the end of six hours, the bandage had become dry, and a strong mould surrounded the joint, and thus retraction during the night was prevented. By these means, *i. e.*, by daily extension, by the apparatus, and by retaining the joint in its stretched position during the intervals by the starch bandage, the greater portion of the foot was brought to the ground in a week, and he was able to walk across the ward without the aid of a stick, although on his admission he could not move without a crutch and a stick. The improvement continued for the next week, when he was discharged, with directions to present himself occasionally at the hospital.

June 10th.—His parents being anxious he should go to school, prefer keeping him at home during the remainder of the treatment. His health is much improved, he can walk about and play with his schoolfellows, and with the assistance of an instrument which is being constructed, I have every reason to believe that the dislocation of the tibia will be overcome, and the limb rendered still more useful.

Case III.—*Anchylosis of Knee Joint, with Partial Dislocation of Tibia backwards, Gradual Extension, and Division of Tendons.*

A young lady was brought to me from a town in Lower Canada in September, 1855, labouring under the effects of disease of the right knee joint, of two years standing, which had ended in anchylosis, and contraction of the limb. The joint presented the usual appearance of partial dislocation of tibia backwards; the leg was not twisted on the thigh, the foot being in a right line with the axis of the limb. There was still a good deal of tenderness about the joint, and a puffy swelling under the patella was very painful to the touch, and was frequently the seat of pain at night. The leg was bent at an acute angle on the thigh, the heel and foot protruding upwards, and backwards; so that she was obliged to sit on the edge of a chair, as only one natis could be pressed upon. She was also suffering from chronic bronchitis. I commenced treatment by efforts to subdue the existing inflammation, and was so successful after three weeks attendance, as to be able to handle, and gently extend, the leg, without causing any pain; although I met with unusual difficulty from the disinclination manifested by the patient to having any plan of treatment pursued. As my patient was staying with relatives, there was no urgent necessity for adopting any rapid method of treatment; and

as the bronchial affection caused some uneasiness, and the catamenial period had just arrived, I considered it more judicious to attempt remedying the deformity by gradual mechanical extension, whilst the general system was undergoing so important a change. With this view, I had an instrument constructed which admitted the muscles of the limb to be relaxed after extension had been carried on for some hours, and was so constructed that the patient herself, or one of her friends, could manage it. The joint was kept smeared with an ointment of iodide of mercury, and an iodine solution and cod liver oil were taken internally. After two months' use of the instrument, the toes could be brought to the ground; and now, strict injunctions were given to leave off the use of the crutch, and use a cane instead of it. This part of the treatment was very difficult to carry out; for, like most persons who have become accustomed to the support and assistance in progression afforded by a crutch, she found it most difficult to dispense with its use. As the navigation of the St. Lawrence was about closing, she returned home, and the same plan of treatment was carried out, not regularly however, by her relatives during the ensuing winter; yet, though the extension had not been advanced, I found that, on her return to Montreal the following summer, that she could walk with the aid of a cane, and even move about without one; and as her health had become improved, and as there was now no pain at all in the joint, it was determined to carry the extension to the fullest degree the condition of the parts would admit of. Instruments of various constructions failed to stretch the limb beyond what would allow of one-half the foot being placed on the ground; the heel was still fully an inch and a half from it; and as further extension seemed prevented by the rigid condition of the tendons of the semi-tendinosus, semi-membranosus and biceps muscles, I resolved to divide them, and thus overcome their resistance. Assisted by Dr. Howard, the oculist, I divided these tendons on the 9th of Oct., 1856, the patient being under the influence of chloroform, and before its effects had passed off, forcible extension to a considerable degree was practised, the joint was enveloped in a wet bandage, and an apparatus applied. There was no pain, swelling or effusion, after the operation; and in the course of a month, the patient could touch the floor with almost the whole of the heel. Indeed, so great was the change, that her parents felt quite satisfied with the improvement already obtained, and wished to allow her to discontinue the use of the instrument, and rely upon the aid of a high-heeled boot. But to this proposition I would not consent; for experience has convinced me, that we should never allow a patient to wear a high-heeled boot, or to use a crutch, if progression can be accomplished without their

assistance; for, so sure as the heel *is prevented descending, and the limb is relieved of its weight-bearing office, the leg will undergo contraction, and the limb will not acquire strength and firmness.*

The operation succeeded well; and, before the patient left Montreal, she could walk out in the streets. She has gone to a daily school since her return to the country, and, with the aid of a cane, can now walk a considerable distance. This improvement has been effected, be it observed, in a limb that was considered irretrievably deformed and useless, and by means, simple, safe and painless.

CASE IV.—*Anchylosis of Knee Joint from Necrosis of Tibia. Extension.*

A boy, aged 13, was admitted into St. Patrick's Hospital, under my care, Sept., 1855. He had suffered from necrosis of the tibia for two years previous to admission, which had terminated in anchylosis and partial dislocation outwards and backwards of the tibia; the leg being fixed at an angle of about sixty, as regarded the axis of the femur. As there was a large sequestrum to be removed, I had planned to excise it before making efforts to remove the deformity of the leg, when the patient was suddenly attacked with acute pericarditis, and was so feeble on his recovery that I gladly consented to his mother's request, to delay operating until such time as his constitution had been restored by country air and good diet. It was not, however, without self-reproach that I contemplated his condition; for the disease of the joint was so extensive, the necrosis so far advanced, the sequestrum apparently so large and difficult of extraction, the leg so twisted and flexed on the femur, and the constitution of the boy so much injured by long suffering, and apparently so little capable of restoration, that I blamed myself for not amputating at the thigh and saving the patient so much pain, and myself so much anxiety. But I was rewarded for my forbearance; for the following spring he was brought to me, in a condition so healthy and strong, that we could hardly recognise him. The limb remained in the same state, but during the winter several large pieces of sequestrum had come away, and only two fistulæ, about the junction of the upper with the middle third of the tibia remained, from which small pieces of bone occasionally escaped. There was no pain in the joint, and attempts at flexion and extension caused no inconvenience. It is unnecessary to detail particularly the measures adopted to overcome the deformity; they consisted in the application of variously constructed splints and apparatuses, the changing of which, from time to time, was required by the varying condition of the limb.

One important element in the treatment was to abolish, first the use of the crutch, then of the cane, and finally to make the patient walk about leaning on the arm of another person, then of the hand only; and lastly, to go without any assistance, objects to which he could cling being placed at certain intervals, in the event of the limb yielding. In fact, we should here imitate the infant's method of gaining confidence when first beginning to walk, and make our patients go through the same process.

Case V.—*Anchylosis of Right Knee. Extension; great improvement.*

The following case, that of the daughter of a medical man, was under the care of Dr. W. P. Smith, who watched it with the greatest interest for years. He has been kind enough to furnish me with the following notes:—

"In the year 1846, —— aged six years, whilst walking, slipt her foot and fell, striking the right knee against the curb-stone of the pathway. A slight abrasion was all that could be noticed at the time, nor was any attention attracted to the condition of the joint till five months after the accident, when walking out with her parents it was remarked that she dragged the right leg after her; and, on examination, the knee-joint was found painful and swollen. Medical aid was immediately called in; leeches were applied, followed by fomentations and counter-irritants; but no improvement in the condition of the joint was the result. The joint soon became stiff and swollen, the knee contracted, and the muscles of the thigh and leg became so emaciated, that nothing but bone and skin seemed to remain. About a year after the disease was noticed, Dr. —— was consulted, who recommended that the joint should be put upon Scott's plan, with adhesive plaster; which was accordingly done, and the limb was retained in a fixed position for the next seven years; the patient all this time going about upon crutches, with the knee bent at a right angle, and apparently an immovable condition of the joint existing. As this helpless condition of the patient was a source of much pain and anxiety to her relatives, Dr. —— and Dr. —— were called into consultation, and stated as their opinion, that as no motion existed in the joint, and as anchylosis had taken place in such an unfavorable position, that amputation about the knee was the only plan they could suggest. To this Dr. Smith and the patient's friends objected. It is worthy of remark, that from the support given to the joint, the patient gained confidence, and, though supported by her crutches, allowed the toe to touch the ground; but to do so, it was necessary to bend the body to such a degree that her parents could not bear to see her make the

effort. A year ago Dr. MacDonnell was consulted. The joint was then in nearly the same condition it had been in for eight years, except that the patella was more thrown to the outside of the articulation. On examination he found the joint in such a condition as to lead him to hold out hopes of improvement from mechanical treatment. He advised Scott's plan to be discontinued, and an instrument, for which he gave the design, to be adjusted, and gradual extension by means of it, to be kept up. *In six weeks from the time Dr. MacDonnell saw this patient, the leg was completely straightened, and she could put the foot to the ground and walk about with scarcely a perceptible halt.* Three months after, she could go to a daily school, and now can walk a distance of two or three miles without the slightest fatigue. Indeed, she has suffered no inconvenience from the treatment whatever; and so little annoyance has the wearing of the instrument caused, that she keeps it applied at night as well as by day. She is now tall and well proportioned, and the halt is scarcely noticeable."

This young lady passes my house every morning on her way to school. Need I say that I take more pleasure in seeing her walk upon a useful limb, which has been rescued from the catlin, than I could have derived from the performance of the most difficult operation in Surgery.

Case VI.—*Anchylosis of Right Knee-Joint in the straight position.—Forcible Flexion; Cure.*

A strong, muscular young man, came to consult me from the United States, June 16, 1853. Two years before he had fallen upon a scythe, and inflicted a wound through the lower third of the patella into the cavity of the right knee-joint. He was treated very actively for the arthritis that ensued, and after much trouble his medical attendant succeeded in saving the limb, and restoring him to health; but he was not able to follow his usual occupation, viz., that of farming, in consequence of the fixed condition of the leg in a perfectly straight position. I advised him to enter the private wards of St. Patrick's Hospital, and having carefully examined the joint, I found that a little motion could be communicated to the leg, which day by day was increased until the limb could be made to describe an arc of about fifteen degrees. Having practised this gradual flexion for some days, the limb was completely flexed in the following manner:—The patient was placed upon a table, beyond the edge of which the leg extended; and chloroform having been administered, and the thigh held down firmly, gradual flexion was made, until the leg was bent to a much greater extent than on any previous occasion. During these manœuvres, as on the previous occasions,

loud snapping and cracking sounds were heard, from the breaking up of the morbid adhesions. The thigh being firmly fixed, the leg was bent backwards and downwards, by a powerful and sudden effort, so as to bring it to an angle of 60 degrees with the thigh, and this flexion was accompanied by such a loud noise that some of the bystanders, though they had previously assisted me, were amazed at its intensity. The patient was carried to bed, an anodyne was administered, and the knee bandaged with a wet roller; tartar emetic was administered, and cold water kept applied day and night to the joint. This man recovered from the operation without a single bad symptom, and was walking about in a week, and left the hospital at the end of a fortnight from the date of the operation.

CASE VII.—*Anchylosis of the right elbow joint—Extension—Great improvement.*

M. M. aged 16, a native of Burlington, U. S., was admitted into St. Patrick's Hospital, under my care, August, 1852. Three years ago last winter she fell down a sloping piece of ground, the right elbow striking the ground. She suffered no pain until the next morning, when she remarked that the skin was abrased, and that the joint was swollen, and that the arm could not be straightened, and remained painful. Though the arm was not extended for the next three years, she had gained such power over the limb that she could earn her livelihood, but she was subject to frequent returns of pain and swelling, and the contraction had gone on to such a degree that the forearm was bent upon the arm at an acute angle, but by extension with the hand it could be brought to a right angle. Slight pronation and supination could be given to the hand; the muscles on the outer side of the arm were thrown more in front than in the healthy arm, when the latter was flexed to the same extent. The prominences of the inner and outer condyle, and of the olecranon retained their normal relations. There was no bony eminence or tendonous projection in front of the joint. There was considerable wasting of the arm and forearm, a difference existing of one inch at all parts between the diseased and the healthy limb.

I had an instrument constructed by which gradual extension of the arm was produced. The extension had to be suspended at different times, owing to the return of pain and swelling of the joint, but these symptoms usually disappeared upon the application of a wet roller firmly placed around the joint. In the subsequent treatment I applied this fact to great utility, for I kept the joint con-

stantly surrounded with a wet bandage. The extension was carried to such a point that at the end of two months the arm was almost straight, supination and pronation, and a considerable degree of flexion could be performed, and she had recovered so much use of the limb, that she was able to take the situation of housemaid in a gentleman's family, and has since been living in a family as cook and housemaid. The muscles of the arm and forearm have become well developed, and are strong and firm, and she suffers scarcely any inconvenience. Whilst under my care I made her use the arm freely in sweeping and dusting the wards, and in sewing, so that when she left the hospital the limb had been accustomed to the sort of work by which she was to earn her livelihood. I may mention, *en passant*, that this young woman, a short time after leaving the hospital, called upon me to know if I would approve of her submitting to *excision of the elbow joint*, which a surgeon, anxious to flesh his maiden catlin, had *kindly* offered to do for nothing.

CASE VIII.—*Anchylosis of the right ankle, Pes Equinus—Cure.*

A healthy young man was sent to me, July 22, 1852, by a surgeon in Quebec, under the following circumstances:—He had been engaged in the timber trade four years before, when he received a severe wrench of the right ankle-joint, which was followed by inflammation, supperation and anchylosis. The foot was extended upon the leg, the tendo-achillis standing strongly in relief, and the heel so drawn up that the toes only touched the ground. The able surgeon who sent him to me had proposed dividing the tendon, and putting on an apparatus as in club-foot, but the private affairs of the patient called him to Montreal, and he was from this circumstance placed under my care. When I first saw him I had little idea that it was for an affection of the ankle he wished advice, for he was walking on a coarsely made wooden-leg, which was applied outside his trowsers, and the leg and foot projected behind. There was a good deal of tenderness around the joint, and two sinuses, one at each side of the joint, extended backwards under the tendo-achillis, from which a thin whey-like matter could be squeezed. I could not detect any communication with the articulating surfaces; but the hinge motion of the joint was almost lost. A probe coated with nitrate of silver was passed into the sinuses, and pressure subsequently applied along their course, by means of compresses and starched bandages. In a short time the sinuses healed, and I commenced flexing and extending the foot by simple appliances, the patient being made to leave off the use of the wooden leg which he had worn for nearly three years and a half; at first

he found it very difficult to move about without it, but before one month he could walk about the grounds of the hospital (into a private ward of which he had entered) without any inconvenience, and at the end of two months he returned home, able to walk well upon the foot, with the heel to the ground. It was not found necessary to divide the tendon,—the gradual extension of the foot was effected by means of an apparatus made upon the principle of those usually employed for club-foot; but I attach as much importance to his having been *forced to walk, and to bring down the foot by muscular action* as to the mechanical contrivance, for I am well satisfied that Professor Syme does not over-estimate the utility of dispensing with much of the machinery with which orthopœdic practitioners have surrounded this branch of surgery, and I hold it to be true, that if *diseased* muscular action can produce many of the mal-positions of the articulating bones (of which I have given some examples above) that restored healthy action, will, in a great many cases, rectify these mal-positions if properly guided and educated by treatment. In illustration of this last position, I may briefly detail the following case :—

A young girl, aged 12, had the right ankle sprained,—suppuration around the inner maleolus ensued, which ended in abscess and discharge. A month after the opening of the abscess, it was noticed that the inner side of the foot was drawn up, and that she walked upon the outside of the foot, and I was consulted at this stage, and was surprised to find that in spite of treatment directed to prevent further deformity, the case went on into one of confirmed varus. Assisted by my colleagues, Drs. Howard and David, I divided the tendons of the tibialis anticus, and tibialis posticus, and part of the inner edge of plantar fascia. A wet bandage was applied, and the patient allowed to go about the wards, no mechanical appliance whatever was used, and yet in less than a fortnight we could not tell which foot had been operated upon, so complete was the removal of the deformity. This, I admit, was an uncommon case, but it shows clearly that we should not attribute too much of the success of treatment to the mechanical means employed.

Case IX.—*Anchylosis of the Wrist Joint. Flexion, Cure.*

Of this variety of the disease I have treated several examples. The following case will illustrate my views sufficiently well. A gentleman, aged 23, received an injury of the left wrist joint which ended in suppuration and anchylosis.—He consulted me in June 8th, 1848. On examination I found that a slight amount of motion could be communicated to the joint, and accordingly, commenced treating it by daily flexion with supination and pronation of the hand. The muscles of the arm and forearm were much emaciated and the loss of power of the limb caused him much anxiety. The treatment consisted also in the

application of Electro-Magnetism, by which the muscular functions of the extremity were called into action, and so soon as by flexion I could communicate nearly all the motions to the joint, I urged him to commence boating, as I had found that the exercise of rowing was well adapted to restore the wrist joint to its former functions. Under this treatment he has regained perfect use of the hand and arm.

The following case at present under my care, is a good illustration of the serious consequences that may follow a very simple operation, if the after treatment of the case be neglected.

CASE X.—*Anchylosis of the right Wrist Joint, following the Puncture of a Ganglion.*

A. C. aged 33, a farmer, had a ganglion on the back of the right wrist joint for six years, which becoming more troublesome, he consulted a surgeon on the 4th of March last, who punctured it and let out a large quantity of jelly-like substance—no dressing was put upon the hand and the wound was left exposed, and he says he was told he might use the hand as he pleased. He drove into Montreal the same day, a distance of eighteen miles, the hand being protected merely by his gauntlet. The same evening his wrist became swollen and painful and the swelling soon extended up the arm. The tumefaction advanced as high as the shoulder, and he was obliged to keep his bed for one month. At this moment the motions of the joint are all lost, but such a degree of motion can be communicated to it, so as to satisfy me that a good deal of improvement may be expected from treatment. The arm and hand can be slightly supinated, but are incapable of pronation. The fingers are stiff and slightly flexed, but enjoy a certain amount of mobility. The arm and forearm are much wasted, being one inch and a quarter less than the left arm and forearm, which, considering that he is right handed, is a great amount of emaciation. He has not any pain in the joint, and imparting motion to it, does not cause any suffering.

I had purposed detailing some cases of anchylosis of the jaw and shoulder; but as this article has already extended to a greater length than I intended, they must be omitted.

The reader will perceive that I have selected those cases which hitherto were considered irremediable, or that were left to nature; the patient being considered very fortunate in having escaped dissolution whilst the much desired anchylosis was being established, and who was not unfrequently reproached for retaining a useless limb, rather than

undergo amputation, and supplying the deficiency by an artificial one Now, I hold that the *limb which can be made to perform any of its functions, is to be preferred to an artificial one;* and, no matter how well adapted these latter may be to the wants of the patient, they are but poor substitutes for the natural member, though many of its uses may be limited or completely lost. It would seem almost unnecessary to discuss this question, were it not that a marked variance of opinion seems at present to occupy the minds of surgeons in Europe upon the propriety of saving limbs in which the knee-joint is implicated; and whilst the medical press of London, Edinburgh and Dublin contains arguments for and against the propriety of excising the knee-joint, with a view to saving the limb and the life of the patient, both parties appear to have forgotten that a more enlightened pathology, a more devoted therapeutics, both general and local, and a less anxiety to handle the knife and saw, might have attained the objects for which they are disputing.* For it cannot, for a moment, be contended that amputation of the thigh, with a "Palmer's Artificial Leg" in prospect, or a shortened leg and an immovable knee-joint, are to be preferred to an anchylosed joint, to which motion and flexibility are restored. That the cases are rare in which amputation of the thigh or even excision of the joint, are called for, is proved by the rare necessity for the former operation now, compared with the frequency with which it was performed some years ago; and I believe I can appeal to the experience of surgeons who have had much to do with this branch of surgery either in hospital or private practice, in support of the assertion that they now save a great proportion of those limbs which some years ago would have been amputated; and it is to be hoped that as our knowledge of the great restorative powers of nature, guided and corrected by sound principles of pathology and therapeutics, become better understood by the profession and by the public, that limbs considered hopelessly lost will be saved, and that contractions and deformities supposed incurable, will be so remedied and removed that many who are even at this moment carrying about what they consider useless limbs may yet enjoy the performance, if not of all, at least of a portion, of their natural functions.

If it should appear to some of my readers that I have over-rated the great disposition evinced by some surgeons, and these not obscure nor

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* The profession is under great obligations to my friend Mr. Butcher, Surgeon to Mercer's Hospital, Dublin, for his able and elaborate article on "Excisons of the Knee-Joint." It contains all that can be urged in support of the operation.

inexperienced, to resort to excision of the knee-joint in cases which might have been saved by a little more management, and a little more patience and reliance on nature's powers, I may cite a few particulars from the two last numbers of the "*Lancet*" that have reached Montreal, viz., for June 20th and June 27th, 1857. In the former, it is stated, in the department of "Clinical Records" that Mr. Fergusson performed this operation "upon a little girl with protracted disease of the knee-joint, which had *many features of spontaneous cure* about it, but, after waiting for some time, ended in disappointment. She was in the hospital last winter with a contracted leg, and straightening of the limb was accomplished, but extreme tenderness remained in the knee." At the examination of the joint, it is stated that, "all the articular surfaces were gone, *with commencing fibrous but not osseous anchylosis.*" No mention is made of pus or other products of active inflammation, and there can be but little doubt that the operation might have been dispensed with; for surely tenderness, even if it's amount has not been exaggerated, was not a sufficient reason for performing so serious an operation. At the same hospital, and on the same day, Mr. Partridge operated upon "a lad who had inflammation of the knee-joint over and over again, resulting in contraction, which he a few days previous in vain attempted, under chloroform, to straighten, and to reduce a displaced patella." It is stated "the cartilages were found destroyed," but there were no signs of active inflammation; and it does not appear that, in either case, were there any constitutional symptoms calling for an operation of such magnitude. *

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* As a contrast to the above, it is pleasing to quote from the same record the following case, with its expressive heading:—

"A KNEE-JOINT SAVED."

"A little boy was shown us on the 9th June, at the Westminster Hospital, who had been an inmate for fourteen months under Mr. Holt's care, with disease of his left knee-joint, which seemed to be of a strumous character. It went through all the phases of disease witnessed in that articulation. The patella was in a necrosed state, the joint was filled with pus, and the little fellow was as bad as he could be. Mr. Holt made a crucial incision over the patella, and removed all the diseased part of the bone, and at the same time let out a quantity of matter from the articulation itself, the boy's general health being carefully attended to by good diet, &c. The result has been the healing up of the wound, and actual recovery of the boy, with a useful limb. The joint became firm, somewhat flexed, and without pain. As there was some motion in it, a splint was applied with a screw at its under surface, and extension gradually practised, so that there is now some slight motion, with a prospect of straightening the limb, which we have no doubt will prove a useful one as the boy grows bigger. There can be no question that the result here is likely to be more favorable than if excision had been performed."

But it appears that these operations are now undertaken not only where they are uncalled for, but also in cases where no permanent advantage to the patient is to be anticipated, and no end gained but the *eclat* of operator, for in the same number of the *Lancet* we have the particulars of a case of "Excision of the Hip-Joint," by Mr. Handcock, where it is stated that "the boy seemed very delicate and pale, and worn out from hectic fever. *We learned that he had tubercles in the lungs also.*" Let it be remembered that the operator is not an ignorant practitioner, whose overlooking the existence of tubercles of the lungs, however unfortunate, could hardly be blamed, but a Metropolitan Hospital Surgeon, whose writings have obtained for him a very extensive reputation, and who must have known the inutility of the operation. I am quite sure that no surgeon in this Province would undertake the performance of such an operation, under circumstances so decidedly contrary to all the rules which regulate operative surgery.

In the foregoing observations I have confined myself solely to those cases of stiff-joint that have followed acute and suppurative inflammation of the articulations; I have not alluded to those examples of the disease that depend upon acute rheumatism, hysteria or nervous affections, of which I have treated several, and have kept accurate records.* My object has been to show my brother practitioners, the necessity of abstaining, if possible, from amputation or excision of the joint, if they have any chance of procuring anchylosis, which, in most cases, will admit still further remedy by well applied mechanical means; and secondly, to prove to them that such cases can be treated by the general surgeon, and should not be abandoned, for I hope I have proved the fallacy of the assertion of Bonnet that—"La médecine opératoire na rien à faire dans le traitement des ankyloses."

ART. VII.—*Strychnia.* Being extracts from the Materia Medica Prize-Essay, of the Session 1856-57, McGill College. By Mr. Alexander Reid, London, C. W.

(*Continued from page* 67.)

If the Iodine test before mentioned be added to a solution of bichromate of Potass and Sulphuric Acid, after a little time a greenish black precipitate falls, which when the mixture is boiled, becomes red, gives off Iodine, and finally a transparent light red solution remains.

* Whilst correcting the proofs of this paper a patient entered my Study, who came from a town in Lower Canada, to place herself under my care for anchylosis of the left shoulder and left wrist joints, the result of arthritis.

If (in the manner fully discussed) the acid Bichromate solution be added to Strychnia, and after the usual reddening it causes be produced, the Iodine test be then added a dense brownish red precipitate falls immediately; if the mixture be boiled, Iodine fumes are given off and a reddish precipitate still remains after the heat has been continued for some time. This is the Strychnia which has combined with the Iodine, and may be easily proved to be that precipitate by treating with Sulphuric Acid and Binoxide of Manganese. The principle fallacy which this plan of testing labours under, is (as before alluded to) that it will become bleached even if Strychnia be present, and if many other extraneous substances are present also.

The principle one is, however, Alcohol. If even a very small quantity of this substance be present in the Bichromate solution, the latter will be bleached, even if a proportionately large quantity of Strychnia be present. This, no doubt, is a very great fault, but we must be particular if, in preparing the compound containing Strychnia we have used Alcohol, and before we subject it to the test, all that solvent should be driven off by evaporation. I may here state that in any mixture of the Bichromate that has been decolorized, either through the agency of Alcohol or any other incompatible, that the Iodine test will recognize the Strychnia, if any be present in it, and that this alkaloid may be obtained from it by boiling the solution to drive off the excess of Iodine and then collecting the precipitate which will remain, and ascertain its composition by the means previously alluded to.

Delicacy of Tests.—With the Iodine test I can detect easily a solution in water which contains only one grain dissolved in four pints or one part in 32,000, but by comparing the action of the Iodine test on water simply, and then on a solution of the strength of one grain to a gallon, or the 128th part of a grain in an ounce of water, you can easily distinguish between the two. Because in the first as it is merely a dilute Iodureted solution of Potassium which is quite transparent, Iodine being soluble in Iodide of Potassium; but when there is only a very minute quantity of Strychnia present, the Iodine unites with it and forms the insoluble compound which is distinctive, and this when in such small quantity does not fall down but remains suspended in the water causing it to appear a little turned.

I shall not say for a certainty that I was correct, but as near as I can judge I obtained the 128th part of a grain. I divided a half grain twice, thus getting an eighth, and this being dissolved, I took that part of the solution which contained the 128th part of a grain and added it to an ounce of fluid.

If we now assume an ounce of water to weigh five hundred grains, one part of Strychnia can be detected in 64,000 of water. I know that an ounce should contain only 480 grains, but it was the fluid ounce that I used and I have no doubt but it contained the 500 grains in full.

With the Bichromate test, I find it very difficult to distinguish any sensible changes of colour if the solution be weaker than one part in 16,000, or one grain in a quart of water, and then it must be composed with a similar solution, acted on in the same way but wanting the alkaloid.

The Bromine test is not nearly so delicate as that of Iodine, only detecting about one part in 16,000; the principle reason, I think of this, is that the colour of the precipitate with this is so much lighter than that with Iodine, that in very dilute mixtures it cannot be seen, the one giving a light orange tint, where the other gives a dark brick red or brown; the latter, as a matter not to be doubted, produces more opacity in mixtures than the former.

The Chlorine test is not at all delicate so to speak when the mixtures are dilute, and when the Iodine test gives a very dark heavy precipitate, the former can scarcely be recognised.

To Extract Strychnia from Organic Compounds. — By similar testing as in plain liquids, Strychnia can be separated from any organic solution in which it is contained, if it be even present in small quantity. It can then be obtained in its pure alkaloidal state and perfectly colourless if required.

This method, therefore, is of great use, because by it we are not only made sure of the presence of Strychnia by the compound it forms, but we may also examine it in the same state as if it were realy pure.

To detect it in organic mixtures, it is requisite first to add the Iodine test to the liquid supposed to contain the Strychnia, then obtain the precipitate and wash it: and second, treat this precipitate with potassa in solution, when all the Iodine is abstracted from it and only Strychnia remains. If the quantities operated on be very minute, the alkaloid, may not at first make its appearance as it is disseminated through the liquid, but after a while flakey gelatinous looking objects form and settle to the bottom. This is to be carefully washed, as an excess of water would dissolve it. I have found in some cases that no precipitate was formed after the addition of liquor potassae for four or five hours, but when collected, it has proved to contain Strychnine.

Chloroform has been recommended greatly as a solvent for Strychnia; and if so, it would be of the greatest utility when manipulating with such small quantities, as this solvent being insoluble in aqueous fluids,

and also of a greater specific gravity would fall down to the bottom of the test tube. When there it would be brought immediately in contact with the alkaloid, and could then exert its solvent powers to the very best advantage. This could be easily drawn off by a pipette after the alkaloid was dissolved, washed with water if thought requisite and then exposed to the air for a short time, when the Chloroform being driven off you get the substance required. The product thus obtained I need hardly say can be proved to be Strychnia by its solubility in diluted acid, great bitterness, reactions, play of colors with Binox, Manganese and Sulphuric Acid, &c.

I have found liquor Potassae to be much superior to Ammonia as an alkali, with which to abstract the Iodine, for two reasons; first, it is less soluble in Potassa than the above mentioned alkali; and, secondly, it abstracts the Iodine much more readily, never wanting heat to assist it which in the other case is generally required.

The wet precipitate is much more easy to manipulate with than the dry, because, I suppose, chemical affinity is greater before all the watery particles are driven off, than it is if first dried and then wetted, as the water is not united with it in the same way. The alkaloid may be likewise obtained from the bleached or reddened Bichromate solution containing it, by obtaining the requisite precipitate in the manner before given, and then acting as just now described with that product.

When Strychnia exists in Organic Solutions, it may be *directly* tested in these if we make allowance for a few peculiar effects which these liquids cause.

For example on the Iodine test. In most of them immediately on its being added the Iodine separates in flakes as if coagulated, and the remainder of the fluid is tinged, not red, but of a violet colour; but upon the addition of Potassa all this is removed, and the mixture becomes transparent. If it be boiled without the addition of Potassa, Iodine is given off and it becomes clear and transparent. Some of these liquids cause precipitates which are very similar to those of the alkaloids, and are not dissolved unless by long continued boiling. They are at once distinguished, however, by being wholly soluble in liquor Potassa, and giving a clear transparent solution from which nothing is deposited upon standing. Also if the collected precipitate be treated with strong Sulphuric acid, &c., nothing as regards a change of colors is produced. With some that contain Gelatine a precipitate is formed which is to a certain extent peculiar, as it so much resembles the genuine; but it can be easily distinguished by heat as before mentioned. The Bichromate test, as before alluded to, is bleached by

most organic liquids, and its action is greatly impeded. The way which naturally presents itself to obviate difficulties of this kind, is to evaporate the liquids and treat the solid product with Alcohol. In this way we would get rid of gelatine, albumen, dextrine, starch, &c., which for the most part hinder the action of the test. The alcoholic solution must be also evaporated as that agent would have as baneful an influence as those we have got rid of: by dissolving this product in water we can apply the test without fear of fallacy.

Action of Iodine on Nux vomica.—To still further show the property Iodine has to combine with Strychnia, in whatever chemical combination the latter may exist. I made a simple decoction of the rasped nuts, but I found that the precipitate formed was not thrown down as it generally is, making only an opalescent mixture, but upon adding a few drops of Sulphuric acid it was immediately thrown down, thus showing that although it did combine with the Strychnia yet it could not alone separate it from the organic compounds; but when the acid was added, it by its superior affinity separated the Igasuric acid, and then the iodine having a greater affinity for the alkaloid than the last mentioned acid, immediately combined with it and was precipitated in the usual way. I proved this precipitate to be Strychnia in combination with Iodine, by the before mentioned process. I have tried the Bichromate test, but it was bleached, and after a while the green oxide of chrome made its appearance. This, I may say, is always the case when the test is decolorized, although it may take a little while to bring out the color of the oxide. From this bleached solution the iodine test throws down the Strychnia as it is wont. I think the reactions with Nux vomica are very distinctive and leave nothing to be wished for. If you make an acid decoction of the nut the subsequent processes are much assisted. If the process here detailed be compared with that at present given in books on the subject, it will appear to be superior in two respects. Firstly: in the case with which it can be resorted to, and secondly, its applicability when we have to manipulate with very small quantities. This last can be best appreciated when we consider that Strychnia is only present in Nux vomica in proportion of one half per cent., and you would require 200 grains, or between three or four drachms of the powder to yield one grain of alkaloid. This powder has proved poisonous in small quantities, even as few as fifteen grains (Dr. Traill) produced death. There are, no doubt, many cases on record, where larger doses have been given without proving so injurious, but in many of the cases which may be brought before the medical jurist, the quantity taken will not exceed on an average more than thirty grains.

In order to prove that this powder is nux vomica, we must obtain Strychnia from it; and as the manipulations which require to be performed by the customary method (i. e. that described in books) are very difficult and numerous, there is a great probability that the product will escape detection. The customary method is given by Taylor in his work on poisons, as follows: (for details see the work in question). Now instead of all these different steps which would seem to lead inevitably to failure, we may simply by making an infusion and precipitating get the product required. I grant there is room for some loss in both, but much less in the latter than the former.

Experiments on Animals to Prove the Test.—In order to test practically the truth of the statements given in some of the preceding page, I performed a few experiments on animals; and the result of these, I can say with confidence, has fulfilled my highest expectations. In the first instance I gave this alkaloid in small quantities that it might become absorbed, and then be able to test for it in remote organs; and subsequently I gave a poisonous dose that I might find it in the stomach likewise.

The first one of the series was a chicken to which I gave at first the $\frac{1}{6^{1}_{4}}$ of a grain, of the Hydrocyanate of Strychnia. In two hours I gave it $\frac{1}{6^{1}_{4}}$ more, in twenty four hours I gave it $\frac{1}{10}$ and in thirty hours afterwards I gave it an eighth of a grain, of the same salt, but not until it had recovered from the effects of the separate doses. This caused death, and I then made separate acid decoctions of the crop and its contents—the intestines—liver—lungs—brain and spinal chord.

After having filtered the products, I tried all the tests but got no result to rely on. The Bichromate test was bleached, and the Iodine not only combined with the Strychnia but gelatine, so that the mixture was rather complex. Upon addition of liquor Potassae to the portion containing Iodine, all this was abstracted, and the Strychnia became visible as a whitish precipitate. In order to be still more certain of the product I abstracted all the excess of acid, merely leaving a small quantity, because when the water was evaporated it might be charred. The filtered solutions were evaporated gradually until they became thick, ropy, and homogeneous products. I treated them with alcohol separately and boiled them in that solvent. I again drove off the alcohol, and upon then applying my tests, there was no doubt in this case the Bichromate solution gave accustomed reactions, and the Iodine precipitate was proved by Marchand's test to contain strychnia.

It is not requisite to go through this process in order to apply the Iodine test with success, because it will in any mixture combine with

the Strychnia, the only hinderance being that some organic liquids by themselves combining with the Strychnia, render it impossible to distinguish the Strychnia precipitate when thus situated; but as detailed under organic liquids, liquor Potassae removes all and only Strychnia is left, and this can be proved to be that alkaloid by the other corroborative tests.

To return to the mixtures. In the brain and spinal chord mixtures no evidence in the least was obtained by any test. The lungs did not show the least sign of any being there. I evaporated the products to get an extract and then used alcohol, but this was not in reality necessary, and I did it to answer another purpose. I should think from this experiment that Strychnia could be obtained from the liver when you would fail in the other organs to do so; but as this was the only case but one that I gave the Strychnia in such minute quantities, I cannot give much more light on that subject.

The second was a kitten to which I had given $\frac{1}{10}$ of a grain dissolved in Acetic Acid.

I boiled the stomach and its contents, which were bread, meat, coagulated milk, &c., in acidulated water. The filtered product was very thick and mucilaginous, and of a muddy colour.

When the Iodine test was added it behaved in a similar manner to that in the previous case. It appeared at first to have that peculiar reddish white fringe when the test was added, but in such a mixture I would not consider it of any importance. On the addition of liquor Potassae all colour apparently was discharged and you had a transparent liquid, but in a short time a precipitate gradually settled down which was Strychnia, as it proved by the Bichromate test which with this product gave the accustomed reddening of the solution, but when used with the original liquid it was bleached. The intestines gave sufficient evidence of its presence, but with the other two it was different, in being present in greater quantity. That obtained from the crop and liver gave very marked evidence of its being present, and by treating the Iodine precipitate with liquor Potassae I obtained the alkaloidal precipitate, which I tested: first as to taste which was bitter; second—solubility in Acetic Acid; third—Tannic Acid, which threw down a whitish precipitate; and upon this itself being dissolved in Sulphuric acid, the Iodine test gave accustomed reactions. I did not try what effect a salt of gold would have as I did not have any at the time.

But what made assurance doubly sure it gave the reactions with Marchand's (the Manganese and Sulphuric Acid) test. This shows

how delicate it is, for the whole quantity taken amounted to less than the $\frac{1}{4}$ of a grain, and it is most likely that even a portion of it was excreted. From the crop and liver I obtained fully the $\frac{1}{16}$ of a grain, judging from bulk. In the crop, besides what I used for the other tests, when I at first got it there were some grains of wheat and about two table spoonsful of a soft homogeneous mass which was bread in a wet state. The contents of this crop, as any one may see, would give rather a compound mixture with Sulphuric acid present likewise, but the Strychnia precipitate was obtained from this mixture without great trouble.

The third was a kitten to which I had given $\frac{1}{20}$ of a grain, of the double Chloride of Mercury and Strychnia. I do not think there could have been more than the $\frac{1}{20}$.

I treated it as in the other cases, and to a small quantity of the filtered product I added the Iodine test, which became very dark with a reddish tinge. There was a large quantity of precipitate thrown down, which was not all Strychnia, but when liquor Potassae was added all the superabundant product was abstracted, even the whole of the precipitate disappeared. I added some water to render the mixture more fluid and allow of the product to settle down better when formed.

Nothing appeared to form for some hours, but then a flocculent precipitate gradually fell to the bottom, which proved to be the alkaloid by Marchand's test, and the Bichromate likewise.

The fourth was a kitten which I poisoned with a preparation of the alkaloid that proved fatal in ten minutes after receiving it; but about twelve hours before that I gave it an exceedingly small quantity of the double Chloride of Mercury and Strychnia.

It was the liver of this animal that I examined, and as death came on so soon after receiving the last dose, I think that it had not yet been absorbed sufficiently to be present in the liver. The previous dose caused merely a few spasms, but nothing nearly sufficient to cause death, as the next morning it was apparently quite well.

From about the $\frac{1}{20}$ part of the filtered product I obtained evidence which could hardly be doubted. When the Iodine was added a heavy precipitate fell down as is usual in such organic liquids. Where liquor Potassae was added everything disappeared. Water was added to render the product more fluid, and in an hour transparent flocculi were seen floating in the mixture, which after an hour more settled down to the bottom gradually. The supernatant liquid was poured off, and it was washed two or three times with water. Marchand's test gave with this a very delicate play of colours, which I think was distinctive, and

which could be easily seen when compared with the reaction of the same test on the fluid which was poured off the precipitate, thus showing also, that it could not be owing to the small quantity of the original mixture which might happen to be adherent to it, although it was examined in a hurried condition. With the Bichromate test and the original liquid, it was as is usual bleached; but when the precipitate was used with the last mentioned test, a distinctive though yet delicate, reddening was the result.

From these experiments I naturally conclude that Strychnia can be detected even in exceedingly minute quantities, either free or mixed up with other liquids, or even combined with the animal principles, which have prevented the London professor from proving its presence.

I think also that Strychnia can be detected a long time after death, as it is not decomposed at common temperatures, and this fact proves its stability, viz.: that it has been found in the urine in a perfect state. What also leads me to this opinion is that in the first case mentioned, two weeks elapsed after the death of the animal before the poison was detected, and it was subjected to long continued evaporations in solution, &c., and it remained intact.

Physiological Effects.—(These are discussed, as observed first in vegetables, second in animals, and third in man. The originality of the author is chiefly evident under the second head, when he says:) Strychnia is also poisonous to all classes of animals. Its effects on the vertebrata are very uniform, although herbivorous animals are not so much effected as the carnivorous, being in this respect similar to Belladonna and Stramonium, thus one half of a grain will kill a dog in a few minutes, but a much larger than a proportionate quantity would be required to kill a horse. The bird called the Buceros Rhinoceros is said to eat the Strychnos Nuts with impunity.

I gave a kitten about $\frac{1}{16}$ of a grain, as a powder placed on the tongue; for about eighteen minutes it walked about apparently unconcerned but then spasmodic contractions of the limbs commenced. The legs were set out as if to prevent it from falling. The whole body became rigid, and respiration was rendered impossible by contraction of the muscles of the chest. This lasted for nearly two minutes when it again breathed freely and the muscles became quite flaccid. It continued in this manner for eight or ten minutes, when it died apparently from spasmodic contractions of the thoracic muscles impeding respiration. After death it was quite flaccid and moveable.

I placed a quantity rather less than the $\frac{1}{16}$ of a grain underneath the skin of the foreleg in a kitten of the same age.

It was not seized with spasms for about ten minutes, when the contractions of the muscles appeared to be even more vigorous than when the poison was taken by the mouth. Death came on sooner also in this than the previous case, although the symptoms were similar in each. The body was also flaccid and moveable.

About $\frac{1}{16}$ of a grain placed on a piece of toast was given to a pigeon, which was eaten. It flew away unaffected after eating it. In fifteen minutes it came back again and took about $\frac{1}{4}$ of a grain more, after which it stayed picking about. In four or five minutes its gait became irregular, and it acted as though its legs were tied and had no power of bending them. This irregularity increased in some degree, but it flew away as readily as ever. However, just as it was reaching the top of a house it fell down as if shot. After a while it again flew about twenty feet and fell. The spasmodic contractions did not come on very often, nor were they violent, the wings and legs would sometimes be stretched out. Finally the head was bent over directly on the back, and the tail depressed. The head gradually came back again and rested with the beak on the ground, the eyes closed and it died. It appeared to have great difficulty of breathing; after death it was quite flaccid. I suppose the reason it required so much of the alkaloid to kill it was, because it is similar to herbivorous animals in this respect.

Strychnia is a local irritant as I proved from the following experiment. I put the $\frac{1}{64}$ of a grain underneath the skin on the inner side of the thigh; and in order that it might not result from the wound made I merely pierced the skin sufficiently to allow the introduction of the point of the lancet. After putting in the Strychnia I moved the skin over the muscle underneath, and thus brought it in contact with a very large surface (comparatively speaking). By this means the muscle was not so much injured by the knife, and the contact of air was also prevented.

When the animal was killed, in a few days afterwards upon examination, I found a large spot inflamed, but principally in places where the alkaloid was brought in contact with the muscle, some spots here and there not showing as much inflammatory action as others. I have no doubt but it would prove irritant to the stomach, but in no case in the animals upon which I experimented, did I find a trace, as the mucous membranes were not in the least red; but it is not always, perhaps only seldom present.

(*To be continued.*)

ART. VIII. — *Remarks on Hospital Gangrene, from observations made during the late War.* By Assistant Staff Surgeon Dr. Woods.

This disease, for the first time, made its appearance in the wounds of those who had suffered at the battles of Alma and Inkermann, in the beginning of the month of December, 1854. A very few cases may have occurred in the latter end of November of the same year. At this time the hospitals were filled not only with wounded, but also with men suffering from fevers of a typhoid character, varying from low common continued fever to the worst forms of typhus, partaking frequently of the gastro enteric-character. During the summer and prior to the arrival of the first batch of wounded after the battle of the Alma, typhus fever had been prevalent, cholera also with dysentery and diarrhœa were frequent. When the disease of which I now write first presented itself in the large general hospital, this building although very well filled with patients was clean. Every endeavour was made to procure thorough ventilation for which the plan of the building and its appliances were well arranged, and deodorizing agents were extensively used. The atmosphere which is known to possess such an influence over the disease, was at the period of its primary outbreak much colder than it had been at any time since the arrival of the wounded, in fact the accessions of cold weather and hospital gangrene were almost simultaneous; and not only was this the case, but on each occasion of the setting in of cold weather, an increase of the disease was invariably noted with an aggravation of the malady in those already affected. Whether we can account for the effects I have mentioned by the cutting off of the means of ventilation, such as doors, windows, &c., constantly open during the warm, but not so during the cold weather, I am unable to say, but I should think such causes may have had something to do with the production of the increase of the disease. When I first got charge of the hospital gangrene ward, about ten cases were under treatment, by far the majority of whom were suffering from low typhus fever, in addition to the local malady; and most of these fell victims to the combined diseases. From what I saw of the disease, I am convinced its pathological condition is varied, such variations in the condition of the diseased part being accompanied by different species of fever, and requiring each a separate treatment, so that we cannot lay down for ourselves specifics either locally or constitutionally in this disease more than in any other. The following description embraces the different forms which came under my observation.

1st. Cases in which the fever preceded the local manifestations of the disease, at first typhoid in its character, but subsequently degener-

ating into the worst and lowest form of typhus; the constitutional ruling the local malady and most frequently conducing in itself to a fatal result. Diarrhœa almost always present.

2nd. Cases where the local disease first showed itself, the constitutional symptoms succeeding, and sympathetic, the latter mostly sthenic in their character subsiding with the cessation of the spread of gangrene. This class of cases, mostly, though not always, occurred when stumps or extensive surfaces were attacked.

3rd. Cases in which no fever accompanied the degeneration of the healthy action, &c., and where the disease seemed merely local.

4th. Cases where in strong healthy young men constitutional symptoms of a high inflammatory order manifested themselves simultaneously with phagedenic disease showing itself in the wounds from which they suffered, most of which were inflicted by fragments of shells, which injuries I may here remark were of all others, the most prone to take on gangrenous action. In this fourth division antiphlogistic treatment was necessary, and here also venesection was decidedly of service.

With respect to the first class, it was no uncommon occurrence to see a man suffering from a wound become attacked with fever, which from the beginning was of a low type. Shortly after the febrile accession, the aspect of the wound underwent a remarkable change, the granulations disappeared, and in their place a bloody oozing covered the surface of the sore, a thin ichorous discharge small in quantity and of fœtid odour issued from the cellular tissue in the interstices of the muscles and from underneath the surrounding integument; soon these parts were dissected by the sloughing away of the cellular tissue, and in a few days the whole surface of the wound looked like charred meat. The form of the wound became almost oval, the interspaces between the muscles being filled with half destroyed cellular tissue, which having become saturated with clotted blood, assumed exactly the same colour as the muscles, whilst discharge of matter of any kind nearly ceased. The surrounding skin was of a dark red appearance, and rarely vesicated. Whilst the local disease was thus running its course, the constitutional symptoms assumed an equally malignant form; so insensible at this period were many of the sufferers, and so lethargic, that the application of strong Nitric Acid did not seem to give them the least pain: the tongue was covered with a thick black dry fur, the pulse small, quick and thready, the surface colder than natural, and subsultus tendinum not unfrequently present. The bowels were affected, the motions being slightly bilious, very fluid, and fre-

quent. When the local disease had proceeded to a certain extent, and the charred appearance alluded to had become established, the action ceased; it seemed as if the powers of life had so far sunk as even to be unable to contribute to morbific action. The skin was rarely perforated when undermined; the sores were oblong in shape and not as usual, circular. Such cases were generally, indeed always fatal in their termination. The application of strong local caustics only seemed to me to make matters worse. Any amount of internal stimulation was well borne, and once or twice by the free use of wine and brandy, I was able so far to improve the patients condition as to hope for a favorable result, but the men soon sunk again into their former hopeless state. The constitution having to contend with two such poisons as gangrene and typhus seemed completely vanquished, and when we add to this, that all the men were middle aged, had seen long service and were a good deal, even previous to the attack, broken down, we can partially account for the unerring fatality of this form of the disease. None of these cases lived long enough to establish the principle of the constitutional disease by its periodically influencing the local, as we see sometimes to occur when typhoid pneumonia complicates typhus fever. The treatment I used was chiefly directed as I have stated to support the powers of life, such as wine, brandy, nourishing broths, &c.—locally I tried the Nitric Acid but finding it of no avail. I afterwards used carrot poultices and such like applications, and under this treatment some of the sores, for a time, over a small part of their surface took on a healthy action, but speedily relapsed. The lower extremities were in all the cases which came under my notice the only part affected.

The second class of cases occurred for the most part in stumps, especially of the upper extremity, or in large surfaces. This is the disease which I believe constitutes the true hospital gangrene; its march is rapid in the extreme, and except a stop is early put to its ravages, an entire extremity must soon be destroyed. The accompanying fever was secondary and sympathetic in its character in every case which came under my observation. The first symptoms usually noticed, were a change of colour in the aspect of the wound, which took on an appearance as of yellow mixed with red. The discharge at the same time changed from healthy pus to sanious ichor, at first rather less in quantity than the amount of pus previously secreted; but after a short period becoming voluminous in quantity. Severe pain in the affected part was complained of, and the patient looked fatigued and restless. The surrounding skin assumed a deep red colour and vesicated. From this point the disease if not checked quickly extended itself. The skin

became everted, and marked with ridges on its upturned surface. The cellular tissue was dissected from underneath, and in the interstices between the muscles, perhaps at this stage a large portion of the extremity or part would suddenly swell, the skin assuming a deep red colour, and in twenty-four hours the whole of this would be one vast slough, the broken down cellular tissue hanging from the part and looking like tow saturated with matter, while the entire surface became of an ash colour, studded here and there with dark livid spots, hœmorrhage would now occur, though this accident far more frequently occurred in those cases which rather tended to the centre of the limb, and did not spread eccentrically. On one occasion I for a time (thirty-six hours) restrained hœmorrhage from the radial artery, by forming a coagulate with nitrate of silver. In only one case of this kind did I remark any discolouration or flushing of the face said to be pathognenmonic of Hospital Gangrene, even in this case it was not so marked as in another form of the disease yet to be described. In one remarkable case where the wound was situated in the upper part of the right arm, the gangrenous process after extending as high as the shoulder, ceased on the anterior and outer part where granulations showed themselves; in the axilla, however, such a favorable issue did not arise from the application of the nitric acid, the gangrene here continuing to spread. I had hoped a second application of this remedy would have had the desired result, when suddenly the whole extremity from the shoulder to the hand became rapidly œdematous, of a dark red colour and vesicated, low irritative fever rapidly set in, and the man died sixteen hours after the first appearance of the tumefaction. I had supposed that the extension of the sloughing process, which I have described, to the lower part of extremity, hitherto unaffected, was caused by inflammation and consequent blocking up by lymph of the axillary artery and vein; the post mortem which I instituted showed, however, that this was not the case, as these vessels were found healthy and patent. It was in fact nothing more or less than an enormous extension of the disease involving by a single leap an entire extremity within its grasp.

In all these cases the amount of suffering was greater than in any other form of the disease. One circumstance deserving of attention, is the rapidity with which granulations are thrown out, and new skin forms, once the slough has been thrown off. No sores, which I have ever seen, heal so rapidly as those left after this form of hospital gangrene. The pulse after the first or second day, according to the extent of the surface attacked, became quick, full, and strong, the tongue foul, and bowels generally constipated. The treatment pursued was as follows:

On the first appearance of the disease, an emetic was administered, followed by a purgative, and the local application of the Nitric Acid to the surface of the sore, and also to the skin surrounding the sore, and this application was repeated until the disease has ceased to extend. One gentleman who has written on this disease, speaks of the inutility of applying the Acid to the surface of the sore, believing the disease to reside altogether in the circumference of the part attacked. I would merely remark in opposition to this view, that we cannot thus account for the extension of the disease down to the bone, or throughout the entire track of musket balls,—in fact no part of the body whatever is capable of resisting the effects of this malignant disease. I have even seen the extension of the gangrene proceed more rapidly and extensively in the centre of a limb where a musket ball had penetrated, than at either extremity of the opening. In the case to which I have alluded as rapidly involving the upper extremity, it must be evident to every one that no local application could be of service. I have often since regretted I did not try venesection as I think it might have done good.

With regard to the result of experiments made with different caustics such as chloride of antimony, &c., in these cases, I believe on the whole the Nitric Acid to be the best, and also less painful than some others. In accordance with a circular memorandum received at a time when the disease was rife, recommending the internal use of the Muriate Tincture of Iron, I tried this remedy, but I feel certain, that no greater success attended our treatment after than before its introduction; this much is certain it exercises no specific effect whatever over the disease. For the hastening the separation of the slough, I found a strong Nitric Acid lotion the best; in some cases a combination of Castor oil with Balsam Capivi, produced good effects.

The third form of the disease requires but brief notice. It occurred in small superficial wounds, for the most part situated on the lower extremity; and which looked when affected by the disease as if their surfaces were covered with a yellowish albuminous substance. Very frequently only a part of the surface of a sore was attacked, but always a portion of its circumference was affected, and here the skin became undermined, and the ulcer at the affected part assumed or tended to assume a circular form. The disease even if left to itself unchecked, progresses slowly, it was nothing more than phagedenic ulceration; no fever accompanied its inroads, and a single application of the Nitric Acid followed by a dressing with Nitric Acid lotion sufficed to stop the diseased action.

The fourth form of the disease, or that which I have described as being accompanied by fever from the beginning, and occurring

in young and strong subjects, belongs to a class, which I believe has not yet been described by any writer on the subject. The few cases of it which I saw occurred in Camp before Sevastopol: during my time at Scutari there were none such. Its distinction is important for many reasons, but for none more than that I believe that such are the cases in which venesection proves the best remedy, and that the application of Nirtic Acid previous to blood-letting, or during the early stages of the malady, only tends to aggravate the disorder. The first case of this nature came under my observation in the latter end of April, 1855. The subject was a young man who had gone through the previous portion of the Campaign, and was prior to the reception of his wound in good health, he was of sanguine temperament; short and stout formation, and had so far as I can recollect been no more addicted to drinking habits than the generality of soldiers. He was wounded in the trenches by several splinters of shell, one of which cut through the margin of the muscles forming the posterior boundary of the axilla; a second splinter wounded him midway between the axilla and the lower border of the false ribs, and a third piece struck him on the back of the left or same side on which all these injuries had been inflicted; none of the wounds were at all deep or large, and no danger whatever was apprehended. The injuries in a few days assumed a healthy appearance and were covered with granulations, when one morning he complained that he had passed a sleepless night, and that his wounds and the side on which they were situated, were very painful. On examining the part, the granulations were found to have all disappeared, and the surface of the sores to have assumed a dry yellowish glazed appearance. The skin around was puffy, vesicated, and of a dark shining red colour; from underneath the margins of the ulcers, where the cellular tissue was in part assuming a sloughy appearance, came an ichorous discharge small in quantity, and irritating in quality. His pulse was quick and strong, his tongue foul, and bowels confined, but what I particularly noticed was the dark red hue of his face. I made a careful examination of his chest, with the stethescope, dreading that pneumonia might have supervened, but could discover no signs of thoracic disease. I at once gave him an emetic, followed, after its action had ceased, by purgatives, and applied the Nitric Acid around the margins of the wounds.

Notwithstanding this treatment the disease continued rapidly to spread, and the constitutional symptoms more than kept pace with the local spread of the affection. Twelve or fourteen hours after the first appearance of the disease he was delirious, and in a state of lethargy, which the pain of his wounds alone prevented from being continuous

He died thirty-six hours after the first appearance of the gangrene, the entire side having become swollen, red, œdematous and vesicated.

A post mortem examination revealed nothing in the state of the viscera to account for death.

I must confess I was not a little surprised by the sudden and fatal termination of this case for which I was totally unprepared. I regretted when too late, that I had not bled him, and I determined if ever such a case, or one approaching to it in similarity of symptoms, again came under my notice, I would give the remedy a trial, and with what results the next case will show. The application of the mineral acid gave him intense and *long continued* pain increasing the local irritation. There was nothing to account for the origin of the gangrenous action in the state of the atmosphere of the ward, as the latter had just been erected and he was the first patient who had been placed in it.

Case 2nd. A young, and previously healthy soldier was carried in from the trenches to the field hospital, in the early part of the month of July, 1855, at which period many of the wounded were suffering severely from hospital gangrene. The man had been struck by a large fragment of shell over the region of the right kidney; integument to a considerable extent, together with part of the *latissimus dorsi* muscle having been carried away by the missile. Scarcely any hœmorrhage resulted, but the man when he reached the hospital was almost pulseless from the violence of the shock sustained. About an hour after admission, he passed a quantity of urine largely mixed with blood. From the depth and appearance of the wound, it was much feared, the kidneys had been touched by the missile, and thereby injured, but after events proved that such could not have been the case; however, no one who saw the case soon after admission looked for a recovery, as it was supposed the degree of subsequent sloughing necessary to the throwing off of the disintegrated part, must inevitably lay open the cavity of the peritoneum, or at least induce inflammation of the membrane which would with other causes carry off the sufferer. Poultices were applied and a large amount of slough separated without any unfavorable symptoms other than the continual presence of hœmaturia and considerable debility, but the wound itself on the ninth day was covered with healthy granulations, and secreted sound pus. On the morning of the eleventh day after the receipt of the injury, a remarkable change was found to have taken place, the previously granulating surface had assumed a dry curdy yellowish appearance, and from its margin alone secreted a fœtid sanious discharge with the surrounding edges and integument highly inflamed and vesicated. The

man's face was of a dark red colour, his tongue covered with a thick yellow fur, his pulse quick but not very strong. On the twelfth day the surface of the wound was covered with a greyish slough and its margins undermined, yet be it remarked the discharge was much less than was commonly the case in other forms of gangrene; in this respect, indeed, presenting quite a contrast, as the quantity secreted was much less than even might be expected from a healthy sore of the same size. Nitric acid was applied but did not stop the extension of the disease, and taking into account the highly congested appearance of the patient, with the comparatively small amount of the discharge notwithstanding his debilitated condition, venesection was deemed the only remedy which afforded a chance of saving life. This operation was accordingly performed and six ounces of blood taken away when syncope threatened. The best results succeeded. The burning pain was in a short time relieved, and the red and conjested aspect disappeared. Soon after the loss of blood, the extension of the gangrenous process ceased, and the slough separated under the use of the nitric acid lotion, the wound again assuming a healthy aspect. The man was finally sent to Scutari for further treatment, still passing bloody urine, but with a much diminished quantity of the former ingredient. It may be argued that the small quantity of blood taken away could have produced little effect, but when we take into account the debilitated condition of the patient, caused by the previous separation of a large slough together with the extensive suppuration, we must form a different opinion; besides the marked and speedy benefit which resulted affords the best proof of the benefit conferred by venesection. The dry yellowish appearance of the affected part in the primary stage, the excessive violence of the constitutional symptoms with the dark red congested aspect of the face, is sufficent to distinguish this form of gangrene from any of the preceding classes.

ART. IX.—*New views on the Physiology of the Large Intestine.* By M. F. Colby, M.A. M.D., &c., Stanstead, C. E.

It is now more than eighteen months since I discovered the error in the received physiology of the function of the large intestine, particularly in that part of it called descending Colon, Sigmoid flexure and rectum. Every day's observation since has confirmed me in the correctness of my views. Although I have not been able to engage in

general practice, I have had numerous opportunities of testing them as to their bearing on pathology. The knowledge of the true function of the descending bowel does away with all the uncertainty complained of by medical men as to the effect of catharties, and more particularly of enemas, in many cases. A discussion took place in the Westminster Medical Society in 1833, which is reported in the London *Lancet*. The discussion developed one fact, that there was a consciousness among all present that there was something not satisfactory in the received physiology; which led of the question to the anatomists present, whether there was anything in the anatomical structure of the descending bowel which could operate as a valve?

I can demonstrate the received physiology of the function of the descending bowel to be untenable, and that it implies the charge that the Creator has left a defect in the organization of a particular part, which renders it inadequate to the performance of the function assigned it. My new physiological doctrine recognizes two distinct apparatuses, each possessing peculiar and distinct functions over and above what is recognized by the old system. These functions were supposed to pertain to that apparatus called the large intestine, and heretofore assigned to the function of organic life, assisted by the voluntary co-operation of the abdominal muscles.

As to the purport of my new physiological doctrine, I quote from lectures which I am preparing illustrative of the subject, the following recapitulation:—

1st. I assume that the organic function of the colon ceases at its left transverse extremity.

2nd. That the portion called descending colon and sigmoid flexure has a separate and independent function.

3rd. That this portion of the bowel is anatomically inadequate to the performance of the function heretofore assigned it.

4th. That this portion constitutes the link between the animal and the organic life. That it is possessed of both animal sensibility and contractility to such an extent as to entitle its functions to be considered those of animal life.

5th. That although it is to a certain extent subject to the will, and can be brought into action at any moment by it, yet it has an independent instinctive life which gives it an influence and a power which neither its organic or its animal life could give it.

6th. I assume the name of *curator* as proper to express its function; and as it is a dualite acting under its instinctive life, at times in a separate capacity, I give the name *curator superior* to that portion above the

superior spinous process of the ileum, and which for the time is devoted to the functions of organic life; and *curator inferior* to the portion below, usually called sigmoid flexure—this for the time being devoted to the functions of animal life.

7th. That the *curator*, when acting as a unit, occupies the post of observation between the two lives. That it takes cognizance of the time when the digestion and the nutritive absorption is completed in the small intestine; that it then opens the ileo-colic valve, and at the same time by a suctive and expansive action it takes the fæcal matter from the transverse colon and conveys it to the rectum, which it aids the levator ani muscles to raise, and by a divergent action of its two longitudinal muscles it opens to receive the same. The *curator*, by its instinctive power, recognises the fitness of the rectum to receive and expel the fæcal matter simultaneous to the opening of the ileo-colic valve; it also at the same time brings into action the abdominal muscles, by which the contents of the small intestine are pressed forward to supply the place of the refuse matter removed from the colon. Its office is therefore not only prehensile in taking the fæcal matter from the transverse colon and conveying it to the rectum; but it exercises the conservative function of keeping the ileo-colic valve closed till such a time as the absorption of all nutritive matter from the contents of the small intestine renders its closure no longer necessary.

8th. That the rectum is part of an apparatus which I call rectal, and which is wholly under the domain of the will; that it exercises the function of defæcation, and aids in that of urination and parturition. In its anatomical structure it is analagous to that of the upper part of the digestive tube with the difference of the reversion of the sphincters. It consists of the strongest muscular portion of the bowel; the rectum, with its muscles; the two sphincters, the levator ani, the coccygei, &c. The same looseness of the cellular tissue, which connects the mucous with the muscular coat of the œsophagus, is found between these coats of the rectum.

9th. That the power of the will extends over that part of the digestive tube which extends from the mouth to within two or three inches of the cardiac orifice of the stomach; so also the power of the will extends from the external sphincter ani to within two or three inches of the left transverse extremity of the colon.

10th. That the rectum, in that abnormal state which results from phlogosis of its muscular coat, has its contractility exalted so as to cause it to act antagonistically to the *curator*. This is the most frequent cause of constipation and its consequence. When this contractility becomes

spasmodic this resistance leaves the *curator* to mechanical forces—hence results accumulations and distention of its weakened side walls. It is this abnormal state of the most sensitive part of the digestive tube which fills the hospitals with the insane. It is also in this state that the *curator*, by its instinctive life, acts as a dualite by a peculiar transposition which gives it a great power in overcoming the resistance of the rectum.

11th. The ileo-colic valve may have its function suspended by local disease, as well as by peritoneal inflammation; but the most frequent cause is the suspension of the function of the *curator*, which may arise from antagonism from the abnormal state of the rectum, or from a phlogosed state of its own mucous membrane. A sudden closure of the valve would cause tympanites, ileus or strangulated hernia. A weakened or too active state of the valve would result in emaciation from the premature passing of the nutritive matter.

CLINICAL LECTURE.

Use of the Starched Bandage in some complicated Cases of Fracture.
By John Hamilton, Surgeon to the Richmond Hospital, Dublin.

(*Dublin Hospital Gazette.*)

Some years since when the starched bandage was first introduced in the treatment of fractures in Belgium and France, it was tried by many surgeons in this country, but quickly abandoned; and considering the way it was generally applied, this cannot be wondered at. A calico bandage, dipped in starch was wound round the limb, and expected when dry to form a splint, exactly moulded to the part, and so it did. But in drying it also contracted, and exercised considerable compression on the soft parts, particularly injurious when those where situated over bony prominences, as the lower end of the ulna, or indeed the whole length of the superficial side of that bone, the malleoli, &c. The starched bandages also frequently dried in hard sharp ridges, forming indurated ring-like constrictions. From both these causes, particularly in children, mortification more or less extensive, resulted. A child was brought to me at the South-Eastern Dispensary, in whom a starched bandage applied for fracture in both bones of the fore-arm, and left on for many days had caused gangrene of a third of the fore arm, happily extending no deeper than the sub-cutaneous cellular tissue. In other

instances the mischief was much more serious, and several cases were published at the time exposing these injurious effects. Though such severe consequences were not always induced, the patients suffered such pain from the pressure of the hard ridgy bandage next the skin, that it became intolerable, and had to be taken off. In removing it another disagreeable consequence was found, in the adhesion of the bandage to the skin and hairs, so that the latter were obliged to be torn out, or painfully pulled, and bits of the cuticle were often removed. Applied in this way, and left on, no use could be made of it in compound fracture, as how could the discharge get out? nor in any fracture where the contusion or direct violence led to the expectation of much swelling. The starched bandage consequently fell into disuse. M. Seutin, of Brussels, visited Dublin, and exhibited at Steevens' Hospital his mode of application, which obviated all these objections, and ought, I think, to have led to a more frequent use of the starched bandage in the treatment of fractures. Like every inventor, M. Suetin applied it much more extensively than is likely to be done by any one else. He puts it on, for instance, in the very first instance, a proceeding the benefit of which appears to be very doubtful. I believe it is much better to let the first fortnight elapse, and the first accidents of swelling, vesication, &c., to subside, before putting the limb in the starched bandage; this is the plan I have followed in this hospital in a large number of cases, and in a more limited number of private patients, greatly to their comfort, as about the third week, the patients with broken legs, instead of being still confined to bed, can go about on crutches in the open air, a matter of great moment in delicate people, or those who cannot conveniently stay away from their business. But what I am anxious very briefly here to enforce is, the great value of the starched bandage in cases of broken leg, where, from any cause, the leg cannot be kept steady and motionless by the aid of the usual splints.

Some years ago, I saw, with Mr. Newland, of Camden-street, a gentleman who, while tipsy, had slipped off the pavement, and suffered Potts' fracture and dislocation of the left ankle. The foot was reduced, the displaced fracture put in proper apposition and kept so by side splints. The next morning every thing was right and the limb as I had left it. The third day I found all in confusion. In the night delirium tremens had manifested itself, by the patient getting out of bed, dragging the broken limb after him, without apparently feeling any pain, and searching about the room for a gun to shoot his aunt, whom he believed to be a Young Irelander! With great difficulty he was got to bed, and kept there, but he was constantly tossing about the broken

limb to the total derangement of the apparatus, and re-displacement of the fracture. It was quite clear, that even if the foot and leg could be kept tightly fixed, the incessant and violent motions of the body would twist and turn the upper fragment, and irreparable mischief take place. The only thing likely to answer was, to put the limb up in such a way that movement would not act injuriously on the fracture. The starched bandage seemed best likely to fulfil this indication, and accordingly during a lull, after the exhibition of opium, I applied it rather thicker and stronger than usual, and guarded by small wooden leg-splints. It answered perfectly, though for the next twenty-four or thirty hours the patient was delirious and most restless, and with difficulty kept in bed; the whole leg in the starched bandage moved about with perfect safety to the fracture. The delirium was subdued by the usual remedies, and the starched bandage kept on during the further progress of the case, which was quite satisfactory. Let me relate a more difficult case still of compound fracture of the leg:—

Patrick Shalvey, ætat. 56, admitted July 11th into No. 1 Ward, with compound fracture of the right leg. He had been wheeling a barrow of stones in Glasnevin Cemetery, along a plank ten feet above the bottom of a vault; he was pulled down by the wheel of the barrow slipping off the plank, and besides the injury by the height of the fall, he was much hurt by the stones falling about him. On admission there were found to be fractures of both bones of the leg above the ankle, the foot slightly everted. There was a small punctured wound through which the sharp end of the broken tibia had protruded, but no bone was now visible. From the opening came a considerable flow of blood, and there was much swelling from effusion of blood through the leg. Spasms occurred every now and then, his manner excited, but his pulse only 50.

His wife said that twenty-two years ago he had suffered concussion of the brain, and had remained insensible for twelve hours, and was so ill afterwards as to be confined to his bed for a month. For some time his memory was confused, and he used wrong words, and ever since has been subject to loss of memory.

He was placed on his side, and the leg put on a padded splint, the thigh and knee flexed, and a cold spirit lotion applied. He was so restless that the resident pupil gave him an anodyne, but it did not quiet him, and about three o'clock, as he complained of pain in the hypogastrium, and could not pass urine, the catheter was passed, and twelve ounces of water withdrawn, after which he went to sleep. On the following morning, the 12th, he was lying in a stupor, he could be

roused to answer a few questions, but soon dozed off again ; no stertor, but the breathing heavy. Pulse 86, pupils natural. He continued during the day in a state approaching to coma, it being impossible to get him to speak, except yes or no, and this with difficulty; he was covered with a profuse perspiration. There was much effusion into the knee joint, and constant tremors and startings of the fractured limb, which he kept tossing about. The other limb had also strong muscular spasms in it. He was put on his back, and the leg in lateral tin splints, but he tossed them all about, and in the evening the tibia was bent at a considerable angle at the seat of the fracture ; he was incessantly moving about and picking at the abdomen. Pulse 128 ; muscular tremors of the limbs almost continuous.

13th. Still in a state of stupor, tossing the limb about in the most careless manner, without evincing the least pain. His wife said he had several spasmodic shiverings of the entire body yesterday, and three times during the night, each lasting a few minutes. He was bled to eight ounces, when the pulse began to fail. The limb was placed on an inclined plane, with stout lateral splints, but this failed to prevent him jerking it about. In the evening and during the night he had several more of the rigors, which absolutely shook the bed. Some leeches were applied to the temples and cold lotion to the head, and he was ordered calomel and James's powder, a grain of each every hour.

14th. Insensibility continues: he moans and tosses himself about very much ; his wife says he spoke to her this morning, and passed water himself, but was unable to call attention to it, though he evidently wished to do so. The tongue could be seen dark and dry. He was cupped from the temple to ℥ vi., but the pulse fell and became fluttering.

15th. Mouth slightly affected by the mercury, and he had some purging, and next day he was more rational ; a blister was applied to the head, but the mercury was omitted.

He was constantly endeavoring to move his leg, which besides was agitated by frightful spasms, *during which the broken ends of the bone could be heard grating against each other.*

His mind better, but still confused ; the spasms of the limb nearly as bad as ever, kept up, no doubt, by his extreme restlessness. Suppuration has taken place round the broken ends of the bone, which can be felt quite bare with the probe introduced through the wound ; around this the integuments are dull red, œdematous, and obscurely fluctuating, and matter in small quantity can be expressed from the opening. He has troublesome diarrhœa, and to add another difficulty, the right

buttock is beginning to strip over a surface the size of one's hand. He could not, therefore, be kept any longer on his back, which was the only position in which any restraint could be secured against the motions of the broken limb.

It appeared to me that his only chance was to put up the leg in the starched bandage; with this alone he could move about or lay in any position without disturbing the fracture. I accordingly applied the starched bandage as high as two-thirds up the thigh, making an opening opposite the wound on the leg to let the purulent discharge escape. On the fourth day after the starched bandage was put on, he had improved amazingly. The mind clear, his nights good, and the spasms gone; the pulse fell from 108 to 96. From this time he never had a bad symptom, the wound quickly healed, and when the bandage was removed on the 4th of September, firm union appeared to have taken place. It was, however, re-applied and kept on till the 17th, when he was dismissed well, nine weeks after admission.

If we consider the difficulties in this remarkable case, the deranged state of mind destroying the perception of pain or motion of the fracture, which was therefore not guarded against, the fearful spasms absolutely grinding the broken ends against each other, the frequently recurring nervous tremors, the diarrhœa, and finally, the stripping of the back, the great value of the starched bandage must become strikingly apparent.

One word as to the method of applying it. An ordinary calico bandage should first be evenly applied from the toes to the knee, when the fracture is not above the middle of the leg, and above the knee when it is. The outside of this should be smoothly smeared with thick, clear starch, and a starched bandage rolled over this. Then pieces of pasteboard, soft and rather thick, and previously steeped in warm water, so that they readily mould themselves to the inequalities of the limb, should be put on each side of the leg and along the side of the ankle and foot, and also before and behind the seat of fracture. The pieces of pasteboard that go down the side of the leg and foot, when they have dried, make a kind of firm splint; they need not be broad, and should not be cut into the proper shape but torn, so that the edges are not hard and sharp, but gradually bevelled off. The whole should now be well and evenly smeared with starch, and then an unstarched bandage over all. It will be seen, therefore, that an unstarched surface is next the skin of the leg, obviating the objections I have mentioned, and that the outside of the apparatus is unstarched, preventing its troublesomely sticking to the surrounding sheets, and

also to the ordinary leg splints which it is advisable to put on for a support, till the starched bandage becomes hard and firm. Forty-eight hours usually elapse before it dries completely. It should be slit up either with Scutin's scissors, made for the purpose or what does as well, a wooden spatula or paper knife inserted under the edge of the bandage, which can thus be cut down with a pen knife, bit by bit the whole length. When all is seen to be right, the bandage can be closed again and kept so by the application of a little more starch and a few turns of a roller. The patient can now be allowed not only to move or lie on the bed as he likes, but may get up and go about on crutches, not leaning, of course, any weight on the broken limb.

THERAPEUTICAL RECORD.

Clay as a Poultice.—Clay mixed with water, and spread some lines thick upon a rag, is used in Germany as a poultice in cutaneous, cellular and lymphatic inflammations, in parotitis, periostitis, periphlebitis, &c. The application must be often removed.

Lemons as a Diuretic.—Dr. Trinkowsky, a Russian practitioner, as a result of 17 year's observation, speaks in high terms of the Diuretic power of lemons. They should be gradually increased till 18 are taken in a day, after which the number should be diminished. The diuretic effect has commenced on the seventh day, and continued during the whole of the treatment.

Iodine as an Anti-Emetic.—Dr. Eulenburg, of Coblentz, tells us that the Tinct. of Iodine, even in small doses, is one of the best agents for the relief of the vomiting which so often distresses pregnant woman. In addition to its anti-emetic quality, it calms the often accompanying cardialgia.

Iodid Potas in Scarlatina.—This salt has been highly recommended in this disease. It is to be given in grain doses, repeated at interval half hours. It has been employed by Dr. Charles E. Cady of the United States in over 100 cases with uniform success.

Colocynth and Nux Vomica.—In obstinate cases of habitual constipation, Dr. Haughton says in the St. Louis Medical Journal, you will find the following a very capital pill :—Half a drachm of Colocynth and three grains of extract of Nux Vomica made into twelve pills, one to be taken night and morning.

Perchlorid of Iron in Piles.—M. Thierry states that he treats haemorrhoids even when large, by first blistering them and then applying the Perchlorid of Iron to the denuded surface, under the influence of which they sink and disappear. The same treatment does for Varix. The disease may recur but only after a long interval.

Pepsine.—The dose of Pepsine is about one scruple. It is prepared by washing the rennet bags of sheep, pigs, &c., and then scraping off their mucous membranes. These latter are then bruised and digested in distilled water for

12 hours. The resulting solution, after being filtered, is treated with Acet Lead ; the lead precipitate is diffused in water and decomposed with sulphuretted Hydrogen. The fluid thus obtained after having been filtered, is evaporated to dryness. The article sold as Pepsine is made from this, mixed with an equal weight of starch, and a little Lactic Acid.

Glycerin, et al.—Dr. N. S. Davis, of the North Western Medical and Surgical Journal says, for cases of tubercular disease, before the cough is accompanied by much expectoration, we frequently prescribe ℞ Glycerin, 2 ʒ, Iod. Potas 1 ʒ, Sulphatis morphiæ,——— mix and give a teaspoonful before each meal, and at bed time.

PERISCOPE.

Treatment of Ovarian Cysts. In a discussion before the Academy of Paris. M. Velpeau believes that, perhaps, in the majority of cases, women having these tumors, may enjoy tolerable health for ten, twenty, or thirty years ; in fact, the mean of ordinary life : but still there are others not so fortunate, but who succumb within the first ten years, whether from the excessive development of the cyst, its inflammation, the tapping it has rendered necessary, or intercurrent diseases. As to the palliative tapping, M. Velpeau had performed it so often that he had come to look upon it as a very simple affair, when he lost several patients in the course of a single year. As, for a reasonable chance of effecting a radical cure in these cases, the woman's health must be tolerably good, the surgeon is placed in the dilemma of determining whether he shall propose to a woman in good health an operation which may kill her, or abandon her to a disease that may become dangerous. Great as has been M. Velpeau's employment of iodine injections in other circumstances, he has always felt reserve in using them in ovarian cysts. Numerous facts have shown him that they exert remarkable power in dropsies of serous membranes, and that their success is less in proportion as the surface to be modified differs in structure from these. In cysts containing uncoagulated blood they may still exert good service ; but they are of less use when the contents are gelatiniform, still less when puriform, and scarcely of any utility when the parietes resemble mucous membrane in structure. Observing the success of others, M. Velpeau has latterly had recourse to these iodine injections himself, and with some good results ; and as he believes the injection of the iodine does not add to the danger of tapping, he thinks there is no reason why an attempt at curative should not be substituted for mere palliative treatment.

M. Jobert observed, that although simple tapping is regarded by some as an operation devoid of danger, under certain circumstances it is a very dangerous one. A capital distinction should be made between *adherent* and *movable* cysts, the operation never in the former case being attended with danger, while in recent, free, floating cysts, the fluid may get into the cavity of the peritoneum, and give rise to fatal diffused peritonitis. To prevent this, the canula should be maintained *in situ*, in order to determine adhesive inflammation between the contiguous surfaces of the cyst and the abdominal wall. No accidents have ever followed M. Jobert's operations when thus conducted. He has never observed a cure to result from simple tapping; but in two cases it has done so after multiple punctures, which have been followed by the deposition of plastic lymph in the substance of the tumor, and the obliteration of the sac. He has employed the iodine injections in thirty cases, and has never, observing the above precautions, met with any serious accident. In several cases a relapse has occurred, although the tumor had seemed to have been completely obliterated.

M. Cruveilhier remarked:—So parasitic is the life of ovarian cysts, that they remain completely strangers to all the great and organic movements of the economy; so that while dropsies of serous membranes may be often advantageously treated by internal medicines, these encysted dropsies are quite refractory. It is to surgical treatment that we can alone look with any hopes of success, but our decision to have recourse to this should be materially influenced by the anatomical characters of the cysts, which are far from being always the same. The differences are dependent upon the quality of the fluid, the disposition of the cyst, and its structure. (1.) It is of great importance, as regards facility of evacuation, whether the fluid be serous, viscous, albuminous, or gelatiniform, and the character of the fluctuation will to a certain extent enable us to pronounce upon the nature of this fluid. (2.) The cysts may be either unilocular, multilocular, areolar, or vesicular, and compound, the latter resulting from a union of the other varieties. (3.) In structure the unilocular cyst sometimes exactly resembles a normal fibro-serous sac, its interior being as smooth as if lined with serous membrane; but it is by no means rare to find the inner surface rugous, or raised by papillæ or vegetations of varying hardness, or occasionally the walls may contain cartilaginous or even osseous plates. In one of the varieties of unilocular cysts there are numerous imperfect divisions, allowing of intercommunication between the compartments. In what M. Cruveilhier terms areolar cysts, of which the vesicular is but a variety, the ovary has become transformed into an areolar mass, having commu-

nication between its meshes, and filled with albuminous matter, varying in consistency from the white of egg to that of honey or jelly. The viscous nature of its contents explains the difficulty or impossibility of evacuating it after tapping. These cases may be regarded as absolutely incurable, not from their nature, which is not malignant, though they greatly resemble in appearance gelatiniform and areolar cancer, but owing to the viscous nature of their contents. Another incurable form is the multilocular cyst, having numerous and non-communicating cells, the contents of which are almost always albuminous. The unilocular ovarian cysts, which are alone amenable to palliative and curative treatment, are fortunately those oftenest met with. M. Cruveilheir approves of leaving them alone as long as possible.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

ANNUAL REPORT OF THE COMMISSIONERS OF EMIGRATION OF THE STATE OF NEW YORK, FOR THE YEAR ENDING DECEMBER 31ST, 1856.—The surgical department of the Emigrant Hospitals at Ward's Island, is under the charge of Dr. J. Murray Carnochan, as Surgeon-in-Chief, assisted by two salaried and constantly resident surgeons; the medical department is under the charge of Dr. H. B. Fay, as Physician-in-Chief, assisted by two resident physicians. Dr. Carnochan performs all important operations. There were cared for in the Hospitals during 1856, including 776 in Hospital on 1st January, 1856, together with 406 births, 6,147,—of whom there died 388. There were discharged, cured, or relieved, 4,979; remaining on 31st December, 1856, 780. The per centage of mortality was 6.31 per cent. on all cases treated, but calculated on the discharges, 7.32. The surgical practice embraced many serious cases, requiring important operations The whole number of surgical cases was 1856, the number cured and discharged, 1401, and of deaths, 53, or about three per cent. on all cases treated.

BOOKS RECEIVED FOR REVIEW.—Gross' Pathological Anatomy, 1857. Kirke & Paget's Physiology, 1857. William's Principles of Medicine, 1857, from Messrs. Blanchard & Lea, Philadelphia. Report of the Commissioners of Emigration of the State of New York. Transactions of College of Physicians of Philadelphia. Dr. La Roche's Address to the Medical Society of the State of Pennsylvania.

Persian Balm.—We would direct the attention of our readers to the advertisement of this excellent toilet article, which appears on the cover of our Journal. We have used it as a dentifrice, as well as for general toilet purposes, and can recommend it highly, as being one of the most efficient and agreeable preparations of the kind we have ever employed.

Secretary's Office,
Toronto, July 25, 1857.

Medical Appointments in July.—His Excellency the Administrator of the Government has been pleased to grant Licenses to practise Physic, Surgery and Midwifery in Upper Canada, to the following persons, viz:

John Noble Agnew, of Duffin's Creek, Township of Pickering, Esq., M. D.; John Reeve, of Peterboro', Esquire, M. D.; Sylvanus Joy, of Otterville, County of Oxford, Esquire, M. D.; David Cameron McIntyre, of Nairn, County of Middlesex, Esquire, M. D.

He has also been pleased to make the following appointments, viz.:—Charles Rolls, Esquire, M. D., to be an Associate Coroner for the County of Middlesex; Orman Skinner, Esquire, M. D., to be an Associate Coroner for the County of Wentworth.

Montreal Light Infantry.—To be Assistant-Surgeon: Assistant-Surgeon Robert Godfrey, M. D., from the Second Battalion Montreal, vice Scott, appointed to the Volunteer Rifle Companies of Montreal.

Ninth Battalion of Montreal.—To be Surgeon: Assistant-Surgeon Eugène H. Trudel, M. D., vice Latour, left limits. To be Assistant-Surgeon: Olivier Raimond, M. D., Gentleman, vice Trudel, promoted.

Volunteer Foot Company of Artillery of Quebec.—Surgeon Philip Wells, is permitted to resign his Commission.

Surgeon James F. Wolff, 11th Battalion of Quebec, is appointed Surgeon to the 1st, 2nd and 3rd Volunteer Militia Rifle Companies of Quebec.

CORRESPONDENCE.

A STUDENT'S LETTERS.

No. II.

My attention has been a good deal directed to Orthopædic surgery. I have attended the Royal Orthopædic Hospital, and seen seemingly intractible cases cured in a perfect manner. In Montreal we see but very few cases of this description, but it is not, I think, that they do not exist, but that the people thus afflicted not generally knowing of the means of relief, seldom present themselves at the hospitals. I was informed by

the surgeon here, Mr. B. Broadhurst, (author of the works on club-foot and spinal curvature), on stating that cases of the kind did not appear to be very common in Canada, that it was the same here before the establishment of the hospital, but afterwards that people came from all quarters to be relieved; some even from Liverpool and other large cities in the central and northern parts of England,—there not being another in any of those places. I have been present very frequently at the treatment of the out and in-door patients, as well as at the operations. The hospital being as yet but small, can accommodate but few, the most being out-door patients. There are on an average from 40 to 45 a day,—the place is literally crammed, many not having seats.

It would be useless for me to describe the surgical operations as they are treated of in every work on surgery, and moreover, here they are not by any means considered as the most essential part to be attended to. It is the after treatment that must be depended on. I may here mention that they never operate twice even when the tendon has to be stretched two inches or more, the one being quite sufficient. Whereas, in the first hospital in London, three weeks since, I saw two or three tendons divided which had been previously operated on during last fall.

The treatment for talipes equinus is after the tendo achilles has been divided, to place the foot in the same position as it was before by curved splints, and then bandage up. The patient should keep the knees a little bent, and rest is better to be enforced. The natural heat also requires to be kept up by appropriate covering. On the fourth or fifth day after the operation Scarpa's shoe may be applied, it must be fitted to the angle at which the foot may be at the time of operation. Extension is now to be made slowly, and gradually increased until the heel is sufficiently depressed, and the foot flexed until it makes an acute angle with the leg. In children, when the muscles are healthy, three weeks will be generally sufficient to stretch the tendon. In paralytic cases longer time is necessary on account of the state of nervous energy and muscular debility. Extension should be made equally, whether slow or rapid, that the tendon may be equally strong, after five or six weeks the process will be completed, and the foot may be brought into use, the patient being furnished with a support attached to the shoe, having a stop-joint corresponding to the ankle, to prevent its being too much extended.

There is generally distortion of the toes more or less accompanying this deformity, but it seldom requires a special operation for removal. It being remedied when the foot is placed into its normal position, although some of the tendons will require at times to be divided.

The after-treatment of talipes varus does not differ much. It requires first to be reduced to T. Equinus, and then proceed as previously direct-

ed. To accomplish the first intention, on the third or fourth day the bandage and lint are to be removed, when the punctures will have healed. The foot and leg are then to be bandaged to a pliable splint placed on the outer side of the leg and foot, and by means of this moderate traction is to be kept up until the leg is not only in the median line, but a very little beyond it, which generally requires about three weeks to accomplish, it now being reduced to T. Equinus, is then treated as usual.

The distortions of adults are treated in the same manner, although it requires months with them where weeks are sufficient in infants. To form any idea of how these deformities can be relieved, you have only to walk through the wards, where you see numerous cases of double talipes varus; the sole of the foot never having been walked on, but turned towards its fellow of the opposite side; the patients having walked for years on the malleolus externus, and a very large bursa formed over that portion. Generally in cases of this kind one foot is operated on first, and in part restored, before the other one is interfered with; and, to enable the Surgeon to judge of the amount of benefit received, plaster casts are taken of all the cases, which thus give a certain knowledge of the progress of cure.

Mr. Broadhurst has lately made a great improvement in the common Scarpa's Shoe, by which every desired motion of the foot can be commanded, and most obstinate forms of varus are thus brought under the power of the Surgeon. In the common shoe, abduction and flexion are only provided for. I need not mention, that, in all the operations, subcutaneous incision is the method adopted.

Spinal curvature is also here treated on a different plan. The deformity caused by the old instruments, in place of removing the original, is now prevented by Mr. Broadhurst's improvement. The ribs are not interfered with; respiration unobstructed; and I have never heard the patients complain even when the instrument was tightly applied.

This branch of the profession is yet but in its infancy (so to speak), and no doubt a few years will greatly change its present appearance; however, in its present state, it demands attention. Even to give an outline of the treatment would require many more pages than could be here devoted to it. There are now several new works on the subject, in which all the latest information can be obtained.

London, 2nd July, 1857. A. R.

HOSPITAL RETURNS.

Monthly return of Sick in the Marine and Emigrant Hospital, Quebec, from the 4th June to the 1st July, 1857.

	Men.	Women.	Children.	Total.
Remained	72	8	3	83
Since admitted	225	12	1	238
	297	20	4	321
Discharged	188	14	3	205
Died	7	1	0	8
Remaining	102	6	0	108

DISEASES.

Fever	24	Abscess	12
Inflammation of lungs	12	Ulcers	8
Inflammation of liver	1	Wounds	6
Inflammation of bowels	1	Contusions	20
Dyspepsia	2	Burns and Scalds	2
Rheumatism	28	Pregnancy	3
Dysentery	15	Roseola	1
Small Pox	4	Rubeola	1
Dropsy	1	Scarlatina	1
Cynanche	4	Neuralgia	3
Diseases of skin	8	Epilepsia	3
Inflammation of testicle	4	Delirium Tremens	3
Syphilis	33	Phrenitis	1
Fractures	5	Scrofula	1
Dislocation	1	Phthisis	1

C. E. LEMIEUX,
House Surgeon.

MEDICAL NEWS.

Her Majesty Queen Victoria, has been graciously pleased to bestow the honor of knighthood on her chief accoucheur, Dr. Locock.—It has been suggested however, that this distinguished gentleman deserved after his arduous duties, to have been elevated to the peerage under the title of Earl Deliver us!—Dr. Cox of N. O. finds the sulphate of zinc the most useful remedy he has ever employed in the coliquative night sweats of phthisis—The Medical Press of France, like the political is under Govermental censorship.—The editor of the *Moniteur des Hopiteaux*, after having in a previous number stated his intention of discussing at full the reasons which in his mind proved Verger to be insane has been obliged in a subsequent one to announce that he is under the necessity of abandon-

ing the project.—Samuel D. Grimes died recently in Pike County, Georgia, at the age of 110 years, always having been in good health.—Ten feet below the surface, the complete skeleton of a buck was found at Nashville, Tenesee.—In England and Wales there are at this time 500,000 females more than males in census of population.—"How many deaths?" asked the Hospital Physician. "Nine." "Why, I ordered Medicine for ten." "Yes but one would not take it." —The following is from the *Virginia Medical Journal*.—Owing to the neglect of the legislature to make the necessary appropriations, the asylums of Indiana for the deaf, dumb and blind, had been closed and the inmates returned to their respective counties.—Dr. Valentine Mott has been elected president of the N. Y. Academy of Medicine; he is still in active practice, and lately tied the common carotid for the forty-fourth time.—The Massachusetts physicians have lately organized a society for the relief of disabled physicians, and the widows and orphans of medical men; Dr. Geo. Hayward is president; the financial success of the society has already surpassed the expectations of its founders, and the association has proved also an additional link of brotherhood among the worthy members of the profession.—The doctors of Boston are making a great effort for the establishment of a free hospital, and the city council have reported in favor of such an institution.—The Massachusetts legislature has farther endowed their Female Medical College despite the governor's veto. It is said that the coarseness and vulgarity of the creatures licensed by this institution is only equalled by their ignorance.—Great complaints are made of the course of the faculty of the Massachusetts Medical College, in graduating persons whom they know will practice homœpathy.—The number of pupils in the Pennsylvania School for Idiots, situated at Germantown, is 33; Dr. Parrish, of the *N. Y. Medical Reporter*, is superintendent, and Bishop Alonzo Potter, president.—Dr. Peaslee, of New Hampshire, is reported to have a work on physiology in press.—The fourteenth annual report of the Utica Lunatic Asylum, gives the following figures: Whole number treated,697; discharged cured ,100; improved, 33; unimproved 65: not insane, 8; died, 30: total, 236: remaining Nov. 1st, 1857, 461; Dr. T. P. Gray, the superintendent declares that the hospitals of New York are altogether inadequate to the wants of the insane.—Dr. Kirkbride makes the sixteenth annual report of the Pennsylvania Hospital for the insane; Whole number of patients, 396; discharged, 172; a great number of applicants rejected.—Measures have been taken by the people of Brooklyn, to procure a memorial of Drs. Crane and Dubois, who died last summer attending the yellow fever patients of that city.—In a late discourse before the Mechanics Association, of Richmond, Governor Wise recommends the establishment of a professorship of veterinary surgery at the Virginia University.

ERRATA.

Errata.—Instead of Tincture arnica, ten ounces; aqua, one grain one drachm, in the last issue of the journal, at page 61, second and third lines: Read, Tincturæ of arnicæ one ounce, water one pint: fiat lotio.

J. Blanchet

THE

MEDICAL CHRONICLE.

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ORIGINAL COMMUNICATIONS.

ARTICLE XI.—*Remarks on Gunshot Injuries to the Extremities;* from Observations made during the late War. By Assistant Staff Surgeon D. WOODS, Licentiate of the Royal College of Surgeons, Ireland, &c., &c.

In making the following observations on gunshot wounds of the extremities, it must be recollected, that no intention is entertained of giving anything like a detailed description of these accidents. On the contrary, I merely intend to put forward such facts as came under my notice, supported in so far as possible by cases, together with the reflections, induced at the time, when the subjects were under treatment, and afterwards by the ultimate results of the treatment put in force.

I shall commence by alluding to wounds of the shoulder. Of the larger articulations in the human body, the shoulder-joint is, I am of opinion, capable of bearing the greatest amount of injury, with the least danger to life; and, when suitable treatment has been adopted, a more useful limb is preserved to the patient than is likely to be the case when gunshot injuries have befallen other articulations, whether of the elbow, wrist, knee, or ankle. In so far as my experience tends, that excessive degree of inflammation, so imminent after severe injury to the last mentioned parts, rarely follows injuries to the shoulder; whilst the operations, whether of excision of the head of the bone, or removal of the

entire extremity by amputation at the joint, are not only more easily performed, but also, as a general rule, more likely to turn out successfully than when compound joints are thus treated. It can be a matter of doubt no longer as to whether, after the passage of a bullet through the shoulder-joint, resection is possible, without other interference by the knife than such as may be necessary for the removal of splintered and detached bone; Mr. Guthrie having given several cases of such recovery: so that we may lay it down as a rule, that in cases where a small amount of splintering has taken place, the limb may be preserved without any operation. The cases are, however, very few indeed when conservative surgery could thus be put to the test; and since the introduction of the Minie bullet, such a class of cases must be fewer than ever, since this missile in its passage through the long bones, or indeed any other structure, lacerates or breaks to pieces the parts with which it comes in contact, much more than did the round ball; its destructive tendencies in this respect being attributable to its more readily assuming a flattened and rugged form, when opposed to any resisting body—Independently of the considerations adduced to, there are others, however, which require notice. For instance, a bullet may have come in contact with the bones entering into the formation of the articulation: the injury apparent may not seem very great and yet be really so, the shattered portions of bone being kept together by the surrounding membranous connections, whilst the subsequent inflammation causes a greater degree of injury in the joint, giving rise to caries, necrosis, and long-continued suppuration, than is the case when the shafts of bones alone have suffered. The amount of prolonged suffering, frequently, as we see in other gunshot fractures, where joints have suffered, extending over a period of years, induced by an attempt to save the limb: the excessive discharge of matter, and the ultimate bad results to the patient's constitution, especially if of scrofulous diathesis, would, in almost every case, demand of us that at the earliest possible period after the receipt of the wound, we should remove the parts injured either by excision or amputation. That some cases of injury to the bones entering into the shoulder-joint, may and do recover without such interference, I am, however, convinced of, having had a case under my own care in which such a result took place; and reflection on this subject with others has convinced me of the exceeding folly of laying down dogmatical rules to be followed in the treatment of gunshot wounds. Scarcely ever do we meet with two cases alike. The constitutions of men are so different; the effects of climate on different individuals so varied, and the complications from disease—when epidemic influences are so rife as with an army in the field—so many; all these combined contingencies, require a sound judgment, equally, if not more,

than the teaching of experience, on the surgeon's part. Accidents, which, under hecdinary sanitary conditions prevailing in civil hospitals, would speedily revive, do too frequently on the field take an unhealthy and unlooked for action, excited by causes over whose prevention we can exercise no control, and induced in no small degree by a sudden change from a mode of life of comfort and almost clockwork regularity, to one whose every feature is the direct contrary.

It is scarcely possible for a musket ball to fracture a bone, without at the same time extensively splintering that part of the shaft through which it has passed, leaving some of the splinters entirely detached, whilst others are in part adherent. In such cases it is our urgent duty, as soon as circumstances will allow after the receipt of the injury, to remove by incision those pieces which must ultimately come away; and yet how frequently is this all necessary operation deferred, or altogether neglected; the part being merely placed in a suitable position, covered with dressing, so far as the removal of the bone is concerned; and left to nature; and what is the result? Months and years roll away, abscesses, preceded by long sinuses, point at different parts of the injured limb, frequently at a distance from the original seat of the accident, spicula after spicula of bone continue to present themselves, the muscles in which these pieces of bone by their sharp and jagged edges take hold, or are otherwise connected, become inflamed, hardened by the deposition of lymph, and finally contracted, whilst nature making attempt after attempt at reparation, throws out callus inordinate in quantity, and in places where such is not required, so that frequently it happens, that a limb which might have been preserved, by the early opportune removal of the detached portions of bone, to become a useful member, remains at last only an encumbrance; a legacy of suffering, finally to be removed by the knife. The foregoing picture is no imaginary one; I have had a number of such cases under my care. In many of these, months after the receipt of their injuries, no attempts at reparation had been set up, the broken ends of the bones were reunited, and through the sinuses could be felt the necrosed pieces of bone, whose extraction, from the state of the action going on in the part, were frequently productive of severe hœmorrhage, and from their being surrounded by callus or thickened muscle, was a matter of no small difficulty. Now, why should this be so? Why is the surgeon, ever ready when necessary, to amputate a limb, so disinclined to cut down on the fractured ends of a bone for the removal of splinters, or when in some cases, an incision might expose such a state of matters, as might dispose him to remove the broken ends altogether by sawing them off, and bring two surfaces likely soon to unite "without after bad consequences" in contact? a

practice in my opinion, not followed out as frequently as it might be. The fact is, the question in such cases usually resolves itself into two parts; Is it a case for amputation or not? and if not, the knife is frequently laid aside altogether, when it might be used with the best results, in the removal of broken splinters, &c.; again, cases requiring such operations are rarely presented to the surgeon during his career as a student: these with other causes unnecessary to mention, operate, too frequently, in the prevention of a practice all necessary, and without which conservative surgery has not a fair chance of success.

The following case exhibits an example of injury to the shoulder-joint, in which recovery has taken place, the limb being preserved without an operation. One or two persons who saw the case a short time after the injury, expressed a doubt as to whether the articulation had suffered, but having afterwards treated the case myself during the man's return to England, and whilst in the hospital at Portsmouth, I became satisfied that the joint had been implicated in the original injury.

Case.—Sergeant Seymour, 23rd Regiment, a young and previously healthy soldier, was wounded at the final attack on the Great Redan, on the 8th of Sept., 1855, by a musket ball, which entering anteriorly, on a line with the attachment of the capsular ligament of the shoulder joint to the humerus, passed downwards and backwards, sweeping through the lateral and dorsal aspect of the arm, about two inches lower down than the point of entrance. After a careful examination, some doubt being entertained as to whether the joint was implicated, it was decided not to amputate: several splinters of bone were extracted, and the limb being placed in a suitable position, properly supported, and kept covered with a cold dressing, the case was left to develop itself. Considerable local inflammation ensued, followed by profuse suppuration; large sinuses formed posteriorly and anteriorly around the joint, and several long and ragged splinters of bone were removed, but no attempt at reparation of the injury done to the bone was set up during the man's stay in camp, from whence he was not removed until the 15th of January, 1855. I had this man afterwards under my charge, in the Hospital Transport, Great Tasmania, whilst returning invalided to England, and subsequently in the Hospital at Portsmouth; during this period I made frequent incisions down to the bone in the course of the sinuses, and extracted a considerable number of long and ragged pieces of bone, which from their length and aspect, evidently formed a portion of that part of the humerus entering into the formation of the shoulder joint. I continued this practice until no more dead bone could be detected, but little or no improvement took place: nor did the sinuses tend to heal until towards

the close of the month of April; during the latter part of this month, however, he improved considerably, and when he left Portsmouth Hospital, in May, several of the sinuses had healed, and he had partially recovered the power of motion in the limb, which previously he could not move by his own effort; his general health also was much better.

The foregoing case is therefore important from two circumstances. In the first place, as shewing how far we can extend the practice of conservative Surgery in wounds of the joint when we have a young and healthy subject to deal with, and in whom neither a Scrofulous nor a Syphilitic taint exists; either of which would materially influence the course to be pursued on the performance or not of an operation. But the second and more important point remains to be considered. We have had a most favourable subject to deal with, and yet for a lengthened period, extending over a space of seven months, no attempt at reparation whatever was set up; whilst the incessant discharge of a large quantity of pus, combined with the constant irritation necessarily present, and the confinement to bed, from which, on account of the state of the limb, the man could not for a long time be removed, bore down the constitution; which had it not been originally good, must have given way, and necessitated the removal of the limb, for the purpose of saving his life. Nine months after the original receipt of the injury, when the man was removed from my charge, reunion had only commenced, and a long period must still have to elapse before a permanent recovery, with a partially disabled limb, could take place. (Mr. Guthrie, in his commentaries on Surgery, has mentioned a case of gunshot injury to the head of the humerus, in which, years after the receipt of the injury, disease of the head of the bone still existed.) The question then for consideration is: would it not have been much more preferable in the beginning to have excised the fractured portion of bone? the patient, under the influence of Chloroform, could not have felt the knife, and the operation is not in itself dangerous to life; neither would the ultimate mutilation have been greater than ensued from the attempt to preserve the limb entire, thus removing the great objections to all operations. The answer to the question is therefore obvious. Had excision been performed, the man, in all likelihood, in three or four months, would have been free from pain and suffering, and with an equally, if not a more useful limb, than is likely to result from the course pursued. The constant formation and presence of sinuses, which in a wound of the joint we cannot avoid, are in themselves most likely to bring about Caries in sound portions of the bone; so that we have thus a constant reproduction of disease being set up, and only to be removed by the removal of the entire part. Should such a case again, then, come under my notice, I would not leave

it to nature. I would do the operation of excision of the head of the bone. It is however a happy circumstance to be aware of, though still rare wounds of this kind come before us at a time when Hospital Gangrene, or other malignant influences affecting the course of wounds, are rife, we may for a time defer the operation without endangering the patient's life or ultimate recovery. In some cases, when the head of the humerus is much shattered, and the scapula implicated in the injury, of course immediate excision is the last and indeed the only remedy; not alone on account of the saving of the patient's health, by the prevention of inflammation, profuse suppuration, &c., but also on account of the hæmorrhage which is present to the wounding of some of the vessels of the part, by the numerous sharp spiculæ of bone. At least half a dozen cases have come under my own observation, in which large vessels were thus wounded, and with fatal results in some of these cases; the constitution of the man having become so reduced by previous suffering &c., as to be unable to bear up against a large hæmorrhage. The following case is an example of this nature.

Case.—A man belonging to one of the Regiments of Guards was wounded at the battle of the Alma, by a musket ball, which fractured the head of the humerus with the glenoid cavity of the scapula. The man came under my eye about fourteen days after the receipt of the injury, when undergoing treatment in the General Hospital at Scutari; from the extensive injury done to the bones I called the attention of the Staff Surgeon to the fact, that it was a case requiring amputation, in which opinion he concurred; before, however, arrangements could be made for the performance of the operation severe hæmorrhage set in, and was with difficulty restrained; the arm was now immediately amputated at the joint and all injured bone removed, the man was however by this time greatly reduced, and accidental sloughing having attacked the stump, he sank three days after the performance of the operation. I may however, here remark, that whilst very few of those primary operations, done on the field of the Alma, and with all the necessary attending difficulties, failed, very few indeed of the secondary operations performed at Scutari, when all the needful appliances were at hand, recovered.

In the foregoing case, had a primary operation been performed on the field very little doubt can remain but that the man's life would have been saved.

(To be continued.)

ART XII.—*Statistics of the University Lying-in Hospital.* By GEORGE E. FENWICK, M.D., Registrar. Physician to the Montreal Dispensary.

The University Lying-in Hospital was established in the year 1843 through the exertions of the late Dr. McCulloch, aided by the zealous efforts of benevolent ladies.

Since the first opening of this Institution in November of that year, to the end of May last, 1753 females have participated in its benefits.

From a faulty system of enregistration it is to be regretted that 759 of these cases are lost to usefulness, (of these I must except 354, some particulars of which were published by Dr. McCulloch, in the British American Journal of Medical Science, vol. 2, page 260), there remain 994 which are available, and these suffer a further reduction of 348 touching the inferior period of utero-gestation.

I have adopted the classification of most British authors, who describe labour under four distinct heads.

1st. Natural Labour, or where the head of the fœtus presents, and the labour is completed within the period of twenty-four hours.

2nd. Protracted Labour, where the head likewise presents, but the labour is prolonged by various causes beyond the above mentioned period, such causes being, irregular uterine action, debility or inertia, rigidity of the os or external parts, tumours, distorted pelvis, and mal-position of the fœtal head.

3rd. Preternatural Labour. Under this division are included all presentations other than the head of the fœtus—manual or instrumental interference in many cases being necessary.

4th. Complicated Labour. In this form of labour, danger to the life of mother, or child, or both ensue, from some accidental cause unconnected with the presentation, such as hemorrhage, convulsions retained placenta, rupture of the uterus, &c.

There are four principal positions in which the head enters the cavity of the pelvis; other four are admitted to be within the bounds of possibility, which make in all eight positions in which the fœtal head descends during parturition.

In considering the relative shape of the pelvis and fœtal head, it would be said that four of the above positions, viz.: where the head enters in the transverse, and antero-posterior diameters, never occur except under certain circumstances, as where the head of the child is small in comparison with the size of the pelvis, and in deformed pelves, where the transverse, or antero-posterior diameters are considerably increased. Naëgelé whose evidence is the result of unwearied

observation of the operations of nature, describes but four positions. The mechanism of labour is undoubtedly complicated. It is easy to multiply varieties in the position of the fœtal head, by insisting on trivial differences, an error, which retards, rather than advances, obstetric knowledge.

The first position, or where the head enters the pelvis in the right oblique diameter, the occiput being towards the left acetabulum and the forehead towards the right sacro-iliac synchondrosis has occurred 911 times in the 1099 cases, equal to about 91 per cent.

The second position in which the occiput is towards the right acetabulum, and the forehead towards the left sacro-iliac synchondrosis has occurred twenty-four times.

The third position, the reverse of the first, has occurred in fifteen cases; and the fourth position the reverse of the second, confessedly the most rare, has been observed in but three cases. For the correctness of the above I will not vouch. The Third Position is looked upon as the next in order of frequency, after the first, although some authors describe the second as being met with in greater proportion than the third. Naëgelé observes that the third position is frequently not ascertained until it has changed into the second position. He states that of 96 cases in which the head presented originally in the third position, he observed it to be delivered in the occiput posterior direction in three only.

Face presentations have occurred five times, in all, the child was saved, in one which was complicated with puerperal convulsions, and in which the forceps were employed, the life of the child was saved, but the mother sank comatose four hours after delivery.

The superior extremities have presented in eight cases, the inferior in nineteen, and there have been twenty breech presentations. The funis was prolapsed five times, and there has been but one case of placenta prævia, occurring in an extern. This latter case is one of great interest in consequence of its unusual termination.

Catherine Tivington, aged 37, in labour with her sixth child, applied for admission into the University Lying-in Hospital, on the morning of the 17th December, 1856.

The Hospital being closed in consequence of puerperal peritonitis having appeared in the wards, she was placed under the care of Mr. D. T. Robertson, at her own residence.

On inquiry Mr. R. found that labour had but recently commenced; for several weeks past she had suffered occasional losses of blood, and on one or two occasions (the husband informed me) in great quantity; the woman did not present an ex-sanguine appearance, nor was she at the time

losing much; it came away in gushes with each pain. On examination the os was found tolerably well dilated, but filled with a soft spongy mass, which impeded the presenting part from being satisfactorily determined. Mr. R. diagnosed placenta prævia, and aware of the serious nature of the case sent for assistance.

I saw the woman shortly afterwards. On examination I found the placenta almost wholly detached, and bulging out through the os, which was fully dilated, the pains were lingering, and by no means severe, with each pain there was a slight gush of blood, but the quantity lost was so trifling as not to have affected the circulating system. I explained to the husband that manual interference was necessary, and that it was an operation attended with risk to his wife. He requested me to delay until he had procured the services of her priest, to this I consented; shortly after he left the house our patient was seized with a prolonged and vigorous pain, as I passed my hand beneath the bed clothes, the placenta was shot with considerable force over my knuckles, and the child immediately followed, the uterus contracted firmly, and all was well as regarded the mother, the child, however, was dead.

Mal-presentations have occurred in fifty-six cases; the forceps have been used in twelve cases, and turning in six cases. Forty-six children were still-born, of these thirty were saved by artificial respiration and other means; latterly, Dr. Marshall Hall's ready method has been employed with success.

Nine children were born dead, making the total number lost twenty-five. Of twenty cases of breech presentations five children were lost, of eighteen footling cases, four were lost. Three out of five children were lost in whom the funis was prolapsed. Constitutional lues occurred in four women, of these two children were born dead, one died two hours after birth, and one left the hospital alive, both mother and child were covered with a papular eruption, the result of this case is unknown.

There have been thirteen cases of twins, one child was lost, the presentation being of the head in the first position.

Triplets occurred once, the first child came breech foremost and was lost, the other two followed soon after, in both instances the presentations were of the head in the first position.

The placenta covered an immense extent of uterine surface. It appeared as if, originally, it had consisted of three distinct placentæ, the funes were short, so much so that in the first birth the cord was much stretched and pressed upon, which accounts for the fatal result. Of the mothers fourteen were lost, of these four died of puerperal peritonitis, four of puerperal convulsions, and six from other causes.

Hœmorrhage has occurred ten times; seven of these were accidental,

two post partum, and one unavoidable. Four of the children were lost, in all the result was favourable to the mother.

Duration of Labour. Of all the cases which occurred 373 were confined before the expiration of the sixth hour from the commencement of the symptoms, 360 between the sixth and end of the twelfth hour, 100 from the end of the twelfth to the end of the eighteenth hour, 94 from the end of the eighteenth to the end of the twenty-fourth hour, 50 from the twenty-fourth to the end of the forty-eighth hour, and 17 over the forty-eighth hour; thus the vast majority 337 cases, were delivered before the expiration of twelve hours, 194 from that period to the end of 24 hours, while 67 only were prolonged beyond the 24 hours.

The length of the Funis. This admits of every variety, thus in 31 cases the funis measured from five to ten inches, 546 measured from ten to twenty inches, 358 from twenty to thirty inches, 67 from thirty to forty inches, and seven were over forty inches; while on this subject I may mention a case, which occurred in my own practice, where the funis measured fifty-four inches.

Duration of Pregnancy. Ten lunar months, or 280 days is the time generally admitted to be the usual period from conception to delivery; that this period is without variation is far from correct, cases there are, well authenticated, in which pregnancy has been prolonged to eleven lunar months equal to 308 days, and the fact of viable children being born a month or two before maturity is of too common occurrence to be questioned; the cases here adduced are not wholly reliable and therefore valueless. I give them however as they are, the period is dated from the last flow of the catamenia and not as is usual, to allow fourteen days from that time.

Thus from 200 to 250 days since the last appearance of the menstrual flow, there were twenty three women delivered.

From 250 to 260 days, three only.
From 260 to 270 days, 57 cases.
From 270 to 280 days, 252 cases.
From 280 to 290 days, 228 cases.
From 290 to 300 days, 61 cases.
And over 300 days, 21 cases.

When we perceive how varied are the operations of nature in all other matters regarding the existence of man, it does seem strange to expect regularity in this particular.

One woman declared she had menstruated regularly to within sixty days of her confinement, the child was born at the full time.

Complications. There have been fifteen complicated cases, one with dropsy, case favourable to child, the woman who was young, ultimately recovered; four cases of puerperal convulsions have occurred, all of them fatal to the mothers, three of the children were saved; ten cases of hœmorrhage; one monstrosity, anencephaloid with single nostril, the presentation was of the shoulder and necessitated turning, the child lived two hours after birth. It is a curious coincidence that this same woman was re-admitted into the Hospital on the 24th of June last, in labour with her second child, the presentation was again of the shoulder. I had to turn, which was accomplished with ease, the liquor amnii not having wholly escaped. The child had been dead for some time, but was perfect as to formation.

KIND OF LABOUR.		DURATION OF LABOUR.		DURATION OF PREGNANCY. NO. OF DAYS SINCE LAST CATAMENIA.	
Natural,	864	From 1 to 6 hours,	373	60 days,	1
Preternatural,	51	From 6 to 12 do.	360	200 to 250 days,	23
Protracted,	64	From 12 to 18 do.	100	250 to 260 do.	3
Complicated,	15	From 18 to 24 do.	94	260 to 270 do.	57
		From 24 to 48 do.	50	270 to 280 do.	252
		Over 48 do.	17	280 to 290 do.	228
				290 to 300 do.	61
				Over 300 do.	21
					646
				Cases unreported,	348
Total,	994	Total,	994	Total,	994

PRESENTATIONS.		LENGTH OF FUNIS.	
First,	911	From 5 to 10 inches,	31
Second,	24	From 10 to 20 do.	546
Third,	15	From 20 to 30 do.	358
Fourth,	3	From 30 to 40 do.	67
Face,	5	Over 40 do.	7
First and hand,	3		
Shoulder,	1		
Arm,	2		
Elbow,	1		
Head, Hand, Foot, Funis,	1		
Breech,	20		
Feet,	18		
Funis,	4		
Placenta,	1		
Total,	1009	Total,	1009

CASES FATAL TO CHILD.			PLURALITY OF BIRTHS.		BORN ALIVE, STILL, DEAD.	
No. of Cases.		Deaths.	Twins,	13 Cases.	Born alive,	954
Breech,	20	Lost. 5	Both Head,	2 Cases 4 child.	Born still but saved,	30
Feet,	18	do. 4	Head & Breech	4 do. 8 do.	Born still but lost,	16
Funis,	5	do. 3	Breech & Head	2 do. 4 do.	Born Dead,	9
Placenta Prævia,	1	do. 1	Head and Feet	5 do. 10 do.		
Protracted,	64	do. 4			Total,	1009
Syphilis,	4	do. 3	Total,	13 26 child.		
Convulsions,	4	do. 1				
Hœmorrhage,	8	do. 4	Both Males,	4 Cases 8 child.		
			Both Females,	4 do. 8 child.	*No. of Males and Females.*	
			Male & Fem.	5 do. 10 child.	Males,	561
			Total,	13 26 child.	Females,	448
			Triplets 1 *Case.*			
			1st.—Male	Breech.		
			2nd.—Female	Head.		
Total No. of Children Lost,		25	3rd.—Male	Head.	Total,	1009

MOTHERS LOST—FROM WHAT CAUSE.		HEMORRHAGE.	
Puerperal Convulsions, ...	4	Accidental Hæmorrhage, ...	7
Do. Peritonitis, 7 Cases, deaths, ...	4	Post Partem, ...	2
Other Causes, ...	6	Unavoidable, ...	1
Total No. of Deaths, ...	14	Total No. of Cases, ...	10

AGES OF PATIENTS.

From 15 to 20 years, ...	111	From 30 to 35 years, ...	131
From 25 to 30 years, ...	290	Over 40, ...	11
From 35 to 40 years, ...	46		
From 20 to 25 years, ...	405	Total, ...	994

ART. XIII.—*Strychnia.* Being extracts from the Materia Medica Prize Essay, of the Session 1856-57, McGill College. By Mr. ALEXANDER REID, London, C. W.

(*Continued from page 126.*)

ANTIDOTES.—(After describing the antidotes ordinarily mentioned, as astringents, conia, chlorine, &c., Mr. R. asks—)

Does Iodine act as a Physiological Antidote? To test this I gave to a kitten $\frac{1}{10}$ of a grain dissolved in acetic acid, and very soon afterwards, almost immediately, I gave about $\frac{1}{2}$ of a drachm of the iodureted solution. It died in the usual time, about 10 minutes, notwithstanding the antidote, and the symptoms under which it laboured were exactly the same as in every other case.

From this I would conclude that its action, as an antidote, was but very slight, if any, at least as a physiological agent. And, secondly,—

Does Iodine act as a Chemical Antidote? It might be thought that the iodureted precipitate, from its insolubility in almost every menstruum, would be just what is required, and the former experiment explained by saying that the strychnia was not acted on by the antidote, and hence the failure. To satisfy this doubt, I precipitated the alkaloid from its solution by iodine, collected, washed and dried it. I gave the compound in a dose of $\frac{1}{3}$ of a grain, rolled up inside of a piece of meat. The spasms came on in the usual time, and with usual severity, and proved fatal. On examination of the stomach, I found about $\frac{2}{3}$ still rolled up in the piece of meat as given, and the remainder was scattered around the cardiac orifice of the stomach, apparently unacted on, as the colour and continuity was not injured. From this experiment I should conclude it was no chemical antidote.

Bromine next comes under observation, and I will not examine it more than as the precipitated product obtained by adding it to a solution of strychnia

I gave $\frac{1}{16}$ of a grain upon a piece of meat; it began to act in 20 minutes, but not very violently. After some time I gave as much more, rubbed up with butter; in fifteen minutes more, spasmodic contractions came on with great violence, and it died in five minutes—although the heart pulsated for two or three minutes after pulsation ceased. On examination, I found it still in the stomach, between the folds of membrane. I do not think from this that it can be of much efficacy as a chemical antidote, because the whole quantity given did not exceed $\frac{1}{8}$ of a grain of the compound.

Since it is so difficult, if not impossible, to get any chemical antidote, (other details have been entered into of the probable inutility of various double compounds of strychnia,) I thought that some active physiological agent might be employed to relieve its spasmodic action. From the quickness with which it acts, the remedy must be active also; and the one that I tried, as giving most chance of success, was *Hydrocyanic Acid*, and I tried it in two cases.

The benefit I should expect from *a priori* consideration is that this acid acts in a manner contrary to strychnia, causing a paralytic effect on the muscles of respiration; and in acting thus, the spasmodic contraction would be at least lessened in action.

I put about the $\frac{1}{6}$ of a grain under the skin on the back of a kitten, and when it became convulsed and respiration was almost ceasing, I poured some of the diluted acid on the same spot. In about ten seconds the spasms ceased, and the limbs which were before rigid became now quite flaccid. It appeared to be quite senseless; but breathing returned and it respired deeply and slowly, the parietes of the chest expanding to their fullest. It remained this way for some time, when gradually the breathing became weaker and not so full, and then stopped altogether.

I tried the effect of this agent on others that had taken it by the stomach; but from the difficulty experienced in administering—nay the impossibility of introducing it into the stomach—no benefit could be derived, as the effects of the acid were not brought out.

(Speaking of its analogy to Conia, we are told) their relative merits cannot be decided from paucity of details; and of the two, as prussic acid is always to be had, it would be most likely the one employed. In its use we must use some circumspection, as it even exceeds strychnia in energy, and it should be only given in small quantities at a time, sufficient to bring out, and keep up its physiological action. It would no doubt answer a better purpose if given immediately on the ingestion of the poison, or before the spasms come on. If given in a large dose just after the injection of strychnia, it would be sufficient to prove fatal long before, so to speak, the strychnia would have commenced. This is a fault which must be guarded against.

I think this agent would be particularly beneficial from its benumbing agency on the nerves of the stomach, and by this means prevent the pernicious effect which the alkaloid would have on them; and thus the spinal chord might not through their impaired innervation be as strongly, if at all, impressed by the poison. It would be quite justifiable to exhibit it endermically in those cases where it could not be administered by the mouth, and thus it would act in reality as a physiological counter-poison.

The acid would not act as a chemical antidote as the hydrocyanate of strychnia though not so soluble as the pure alkaloid, is nevertheless as active a poison if this neurotic were even given after spasms had come on, if it did no more good it would relieve the convulsions greatly and smooth the road to death.

A physiological antidote which I think speaks well for being of much benefit is Chloroform. In one case lately chronicled—the spasms were never allowed to come on through the paralyzing effect of the chloroform, and as it was gradually absorbed, the system got so used to it that it was excreted without any untoward result following after.

I think that it will prove to be a most useful means, but further evidence is requisite on this point, however, before its value can be definitively settled.

(This part of the essay concludes with a dissertation on mechanical antidotes, as lard, olive oil, &c.)

(The Salts of Strychnia constitute the last part; they are divided into those; 1st, with common acids as the sulphate, &c., tannate, benzoate, chromate, carbazotate, et al. 2nd. With hallogen radicals e. g., Strychnia and chlorine described under the hydrochlorate, chlorurretted chloride, oxygen acids of chlorine, and intermediate compounds. 3rd. With cyanogen as the hydrocyanate, hydroferrocyanate, hydroferrideyanate, hydrosulphocyanate, and cyanate. 4th. With the metals as antimony, arsenic, copper, platina, mercury and iron. Among the least known there is described:—)

Hydrobromate of Strychnia.—I cannot find any mention made of this in the works to which I have access. I have prepared it by precipitation from a solution of sulphate of strychnia and bromide of potassium. It is a nice white salt which crystallizes in bundles much resembling hair. They are round and very long.

It is soluble in water to some extent, and hence cannot be washed too freely on the filter after precipitation. It is soluble in the diluted acids. Lowig and Silliman state that bromine like chlorine changes Strychnia and Brucia into bases in which the hydrogen is replaced by bromine. Its uses will be similar to that of the alkaloid itself.

Bromuretted Hydrobromate of Strychnia. — I have prepared this by adding a watery solution of Bromine to a solution of Strychnia. It is of a pale yellow colour, and I give it the above mentioned name as being similar to the like compound of iodine or chlorine. It is very insoluble in water and behaves in almost all other respects similar to the before mentioned salt. Its medicinal uses will be likewise similar to the like compound of iodine.

I gave a kitten $\frac{1}{16}$ of a grain wrapped up in a piece of meat; it merely caused sickness for some time. I think it was the way that I administered it that prevented prompt action on the stomach; but when the same quantity was given rubbed up with a piece of butter, death was caused in twelve minutes. I know that the system was under the effects of it before this last dose, but I think that when it was rubbed up with the butter, it acted much more promptly. The symptoms were the same as they are in general with these salts.

Hydrocyanate of Strychnia.—(This salt, which Thomson in his treatise on "Organic Chemistry" disposes of in two lines and a half, Mr. R. thus fully describes.) This is a beautiful and crystalline salt. It is mentioned by Kane, but I myself prepared it before I was aware that it was mentioned by him, and he is the only one that I know that speaks of it. Its preparation according to Kane is to dissolve Strychnia in hydrocyanic acid, but the product is not soluble in five per cent acid, and if that be used it will never appear to change and it is difficult to tell when the operation is finished. The method by which I first prepared it in a determinate way was, by precipitation from any soluble salt of strychnia and cyanide of potassium. The salt of Strychnia which I have found to answer the best purpose is the sulphate. The temperature of the solution also makes a marked difference in the appearance of this product as well as the similar product of morphia, and also in the simple obtention of the alkaloids from their salts, by adding an alkali. Any soluble cyanide will answer a similar purpose to that of potassium; but if the bicyanide of mercury be used, a double salt is formed which will be described elsewhere. If both the precipitating solutions be cold, the product will be of an amorphous or obscurely crystalline appearance, which under the microscope in the case of Strychnia, gives crystals of the usual form, but small and distinctly of a needle shape; and the product likewise is not so bulky or so quickly formed as when the solutions are hot. If the solution of Strychnia salt be at 212°, and the other cold, you have an amorphous precipitate likewise, but after the temperature falls a little, say to 190° or 200° you have very beautiful crystals formed resembling sulphate of quinine in general appearance but with rather larger

crystals. Kane says it forms needles which are decomposed by a very gentle heat. Under the microscope these crystals are needle-shaped, but with the same power they appear four times larger and longer in proportion than when the solutions are both cold. When you examine the product of the spontaneous evaporation of the alcoholic solution, many look like portions of larger ones which have a cubical form and the crystalline layers are very similar to that of ferrocyanide of potassium. They are right-angled and generally well formed, some appear like flat tabulated pieces superimposed one on another. I also examined a specimen prepared by boiling freshly precipitated Strychnia in water. It appears externally like an amorphous powder, but with a microscope, beautiful four sided chrystals are seen well defined, and with straight edges; right angles well formed, and solid angles perfect: although some of the latter being replaced by planes, gave it a conical appearance at the extremity of the crystals. In many there were two angles and in some only one, replaced by a plane. This was seen to the best advantage by fixing your eye on one of the crystals in the field of view, and then by having the upper glass side moved over, the inferior field being fixed. The crystal, although microscopic in size, can in this way be turned round and round, to expose each of the sides in succession, and the side angles also if required. These crystals belonged undoubtedly to the square prismatic system; because the bases were squares, and equal to one another, having two of the axes equal, and the other at right angles.

This salt is very light and bulky, even compared with the common Strychnia; it is odourless, but tastes bitter; it is not as soluble in water as Strychnia, itself requiring about 7500 parts for its complete solution, which is rendered very bitter: it is more soluble in hot water, two drachms dissolving nearly three-tenths of a grain, and retaining it in solution when cold. And thus water at 212° dissolves nearly twelve times as much as cold does. Its solubility, compared with the free alkaloid, is in cold water scarcely so soluble, and in boiling water four or five times more so.

Its behaviour with alcohol is more remarkable. In cold alcohol three-eights of a grain are soluble in two drachms or one and a-half grains to the ounce, whereas in boiling alcohol one ounce is required to dissolve one grain only; and if a cold saturated solution be boiled, the excess of Cyanide is precipitated, and on cooling this hot solution, what was thrown down is again dissolved.

If water be gradually added to a cold alcoholic solution, a certain quantity is precipitated. It is soluble in diluted Sulphuric, Nitric, Hydrochloric and Acetic Acids; and also in Hydrocyanic Acid of five per

cent., but in small proportions. It is precipitated from either of these solutions by an alkali as a crystalline powder.

The powder which is thrown down is I think the Cyanide un-decomposed, as the supernatant liquid does not give a trace of Cyanogen. It is insoluble in all the neutral salts, as acetates, and sulphate of potash, and ammonia, iodide or cyanide of potassium, and also in the alkalis caustic potassa or ammonia. It is insoluble in turpentine, even at a boiling heat, but dissolves to a slight extent in ether. Nitrate of silver neither gives any evidence of Cyanogen in its alcoholic nor acetic acid solution.

No other test for Cyanogen would indicate its presence. This gave room for doubt as to whether it was or was not a Hydrocyanate; but all these misapprehensions subsequently vanished, because I obtained afterwards undoubted evidence of its presence as a Cyanide of Silver, thus: I added to a solution in acetic acid a quantity of aceto nitrate of silver, then caustic potasso in excess; to render the solution very alkaline, an excess of nitric acid was added, and on boiling the mixed solution the white Cyanide of Silver was precipitated.

I also obtained it from an alcoholic solution with aceto-nitrate of silver and nitric acid, without employing heat. I had tried frequently with solution of nitrate of silver, and obtained no indications; when I used the aceto-nitrate and got successful results. I am sure it contained no Cyanogen, because it was tested previously, and is prepared by adding one-third of its bulk of acetic acid to a solution of nitrate of silver containing one drachm of the salt to an ounce of water; it may be no better, but I succeeded better with it. I proved it to be a cyanide of silver that was thrown down, not only by not being soluble in strong nitric acid when cold, but dissolved by the aid of heat; but also by another test for the cyanide of silver, which I have found very useful, even as much so as the one mentioned.

Cold diluted sulphuric acid dissolves all the precipitates with nitrate of silver, except chloride, iodide, bromide; these not being affected by it at any temperature or strength. Those that I have examined into are the tartrate, oxalate, and phosphate. The Cyanide stands alone insoluble in cold sulphuric acid, but soluble in it if heated. A very diluted acid will not dissolve it even by the aid of heat; in most cases a boiling temperature is scarcely required, and I find I can manage it very well by leaving a very small quantity of water with the Cyanide, and then add your concentrated sulphuric acid, when the heat, disengaged by the action of the water and acid, will be sufficient to dissolve the cyanide if the mixture stands for a few minutes. In hot hydrochloric acid the

cyanide is not so soluble as the chloride: acetic acid at a boiling temperature has no action on either.

I think, from the difficulty experienced in separating the Cyanide from the Strychnia, that it has as great, if not a greater affinity for it than for the silver. The iodiuretted solution acts on the cyanide in the same manner as on pure Strychnia, and in all its other reactions it is similar to the pure alkaloid.

Physiological effects are similar to Strychnia; I gave a chicken one sixty-fourth of a grain, and I thought it caused a little irregularity of gait. In an hour afterwards I gave the same quantity again, which caused it to walk as if its legs were inflexible and stiff; it however eat and drank as usual. It was quite well in twenty-four hours, although during the previous day it appeared to be rather solitary inclined. I then gave it one sixteenth of a grain, which caused in fifteen minutes, sickness and indisposition to walk around unless forced, and then it was in a hobbling manner. I afterwards put one sixty-fourth of a grain under the skin of the thigh, but it did not appear to be productive of any result except causing a little local inflammation. It got quite well in twenty-four hours and I then gave it one-eighth of a grain; in fifteen minutes it became spasmodically affected and respiration was rendered difficult; it had several spasms at once and then remained for ten minutes apparently easy, when they would again come on with vigour. It remained in this way for about an hour, when it died, apparently from exhaustion as much as convulsions; just before dying, thirty seconds or a minute intervened between each effort to breathe.

The pigeon before mentioned took a much larger quantity of the alkaloid itself and did not appear to be at all affected, or but very slightly, and I would think from the two that the Cyanide is as powerful, if not more so than the the simple alkaloid; but I have only these two cases to judge from.

I put about one-eighth of a grain of the Cyanide under the skin, on the back of a cat, which proved fatal in the usual time, and with the usual symptoms.

Uses.—These will be no doubt similar to that of the Alkaloid itself or not very different from it in its actions.

Hydroferrocynate of Strychnia.—This salt is easily prepared by a double decomposition from ferrocyanide of potassium, and a soluble salt of Strychnia. It is an amorphous white powder, but if exposed to the air, and in contact with iron, it becomes green. It is odourless, and insoluble in water; the taste is not very bitter, but is sensibly metallic and disagreeable.

Medical uses will be likely similar to that of the base.

Antimoniate of Strychnia.—This salt is easily prepared by precipitation from a soluble salt of the alkaloid and antimoniate of potash; it is amorphous, tasteless, and insoluble in water.

Uses.—From the composition of this salt I would consider the compound as one of some interest, its insolubility not being any fault; but it might act very violently, as the most of the strychnia compounds do act, as well as those of antimony, the teroxide of that metal being a very energetic compound, and yet insoluble.

Arsenite of Strychnia.—I have prepared this salt by double decomposition from arsenite of potash, and a soluble salt of Strychnia; it is copiously precipitated in an amorphous form, from these solutions; it is not very soluble in water, but yet must not be too freely washed or your precipitate will disappear. It has no taste, and thus differs from almost every other compound of strychnia.

Uses.—What its therapeutical action may be it is difficult to conjecture. From its insolubility it might be considered milder, and from its tastelessness that it might be useful in this respect; but if we consider the poisonous nature of its compounds, it cannot be but very active on the animal system. I should suppose it as, a priori, to be beneficial as an antiperiodic, febrifuge, and tonic.

Both acid and base have been greatly recommended as means of cure for Ague, and the like intermittant fevers; the arsenite of quinine is recommended in bad cases of these fevers, and it is insoluble, or nearly so; and hence I think that if this salt were more used, it would come into general estimation.

Not only would patients be relieved of their bitter draughts, but the physician would not use such immense quantities of an expensive alkaloid, and would be able to carry enough with him in very small compass to answer all that would be required of such a medicine. It is not a mineral alone, but one combined with a vegetable tonic and nervine of great efficacy. I do not think that because it is active it should thus be deprived of showing its virtues to mankind; we would only be required to give it in a less dose, and this is very easy to do, being sufficiently soluble for this purpose.

Hydrochlorate of Strychnia and Platina:—This is a beautiful lemon-yellow salt, but differs in its appearance, owing to how it is prepared. If you add the bi-chloride of platinum to a boiling solution of hydrochlorite of strychnia, you have a salt of a beautifully crystalline form; but if both of the solutions be cold, it is of an amorphous appearance.

If the hot solution precipitate be examined by the microscope, it looks like cubical flakes lying piled one on another; without the microscope

it looks like very thin bright scales. It is insoluble in water; hydrochloric and nitric acids, when cold, but easily in nitric acid when boiling. Its medicinal uses will be similar to those of Strychnia, but its action I think is more powerful.

I gave about $\frac{1}{4}$ of a grain to a cat, almost full grown, mixed up with butter; in eight minutes two or three violent spasms came on, and in one minute she had ceased to breathe; the action of the heart continued for a time. Upon after examination I found the glistening scales of the salt lying partly on the posterior nares and gullet, and partly at the cardiac orifice of the stomach. In this case there must have been a local action on the nerves to produce, almost to say, such instantaneous effects.

Hydrochlorate of Strychnia and Mercury.—This salt is formed, according to Pareira, by adding bichloride of mercury in solution to hydrochlorate of strychnia, likewise dissolved, a white clotty precipitate falls, which is insoluble and shows no crystalline form even under the microscope; but it is obtained as a beautiful crystalline product when the solution of salt of Strychnia is at 212°. This by the microscope appears like small needles very similar to the other salts of Strychnine. It is insoluble in water, but has a bitter metallic taste which is very persistant. It is insoluble in acetic acid, but is soluble in ammonia, nitric, and hydrochloric acids. With sulphuric acid it forms a milky looking mixture although it does dissolve.

Uses.—Will be most likely similar to the alkaloid although much more powerful. I gave about $\frac{1}{16}$ of a grain to a kitten whose mouth was bleeding a little, in thirty minutes it became powerfully convulsed, every muscle being rigid. The spasms came on every twenty seconds, lasted for four or five minutes and then ceased partially. It thus continued for awhile, but gradually the spasms became weaker, and finaly ceased altogether, and the animal apparently became quite well, but in about an hour it again became convulsed and died.

I gave rather less a quantity about $\frac{1}{20}$ of a grain to another, in about an hour it became twice convulsed but recovered and eat its supper, but was not quite well in about an hour afterwards, for it screamed a little at times although it had no convulsions. Instead of mercury diminishing the acivity, I think in this case that it increased its efficacy without doubt; and I think that this preparation is one of the most virulent of any described.

Hydriodate of Strychnia and Iron.—This is formed by dissolving Strychnia in iodide of iron, the protoxide of iron is thrown down at first green, then black, and red on exposure to the air. The solution must be filtered whilst hot, and the solution on cooling throws down

beautiful crystals of this salt. The mother water in which the crystals float contains no strychnia, but some iodide of iron.

The microscopic appearance of this salt is beautiful and the crystals are very distinct, being tubes of a needle like form. It gives a light greenish precipitate with ferrocyanide of potassium and a deep blue with starch on the addition of nitric acid, but not previously. It also yields a very heavy precipitate when the iodine test is added, showing that it contains iodine, strychnia, and iron, although the alkaloid exists in much the greater proportion, and the iron in the least. It is soluble in water if in large quantity, and hence the precipitate must not be washed too freely.

The uses will be most likely similar to strychnia itself. It is a very energetic compound; I gave $\frac{1}{6}$ of a grain of it to a kitten and it died in the usual time and with similar symptoms as with other strychnia compounds. Every compound of strychnia which I have examined depends on the alkaloid altogether, and appears to be uninfluenced or to a very slight extent only, by any other compound with which it may be united. Insolubility has but little to do with strychnia in its physiological actions:—this is contrary to our preconceived notions of things that the more insoluble any compound is the less likely will it be to act energetically.

ART. XIV.—*The late Dr. Blanchet.* By Dr. J. C Tache.

Feu le Docteur Jean-Baptiste Blanchet naquit le 17 mai 1795, dans la paroisse de Saint-Pierre de la Rivière du Sud. Ses parents, Joseph Blanchet et Marie Pélagie Cloutier, étaient des cultivateurs aisés et ayant conservé ces mœurs patriarcales qui distinguent les habitants canadiens. Il nous semble assister à la cérémonie du baptême qui fut faite par le vénérable curé, M. Paquet, entendre du haut du Côteau le son argentin de la cloche de la jolie église, et prendre part aux réjouissances qui saluèrent l'arrivée d'un nouveau membre de la brave famille.

Les années d'enfance et de première jeunesse de Jean Blanchet s'écoulèrent au sein de sa famille, jusqu'à l'époque où dût commencer son

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Through the kindness of the Hon. P. J. O. Chaveau, Superintendent of Education, C.E., we are enabled in this number to present our readers with an excellent likeness of our recently deceased and esteemed confrére, Dr. Blanchet. The biographical notice which follows, from the pen of Dr. J. C. Taché, we copy from that excellent publication, the *Journal de l'Instruction Publique*.—Eds. Med. Chron.

éducation dont se chargea le Docteur François Blanchet, son oncle qui a laissé son nom dans l'histoire de nos luttes politiques comme dans celle de l'art médical canadien. Mis de bonne heure au séminaire de Québec, Jean Blanchet en sortit à l'âge de dix-sept ans pour commencer, sous les soins de son oncle, les études de la profession médicale à laquelle il se destinait.

En 1818, à l'âge révolu de vingt-deux ans, il partit pour l'Europe afin d'y compléter des études brillamment commencées.

Le jeune élève, en compagnie de ses camarades, les docteurs Parent et Mercier, étudia à Londres durant une partie de l'année 1818, puis se rendit à Paris où il suivit à l'Hôtel-Dieu les cours de Dupuytren, et, à l'Hôpital du Gros Caillou, la clinique chirurgicale de Larrey. Revenu à Londres, il continua à suivre les leçons de Sir Astley Cooper, de Sir William Blizard, de Curry et de Blundell. En 1820, il subit un examen dont le résultat fut l'obtention du diplôme du Collège Royal des Chirurgiens de Londres.

Revenu dans son pays, le Docteur Blanchet s'établit à Québec, où, en société avec son oncle, il pratiqua sa profession en même temps qu'il se livrait à l'enseignement de l'anatomie à l'Hôpital des émigrés, qui se trouvait situé près de l'endroit où s'élève maintenant l'église du faubourg saint Jean. Au décès de son oncle, en 1830, Jean Blanchet fixa sa demeure dans l'ancienne maison de son protecteur, au coin des rues du Palais et des Pauvres, maison qu'il a toujours habitée depuis et dans laquelle il vient de terminer sa carrière.

L'affreuse épidémie de 1832, le choléra, qui ravagea Québec, fit ressortir dans tout son éclat le dévouement de Jean Blanchet dans l'exercice de sa profession. Il serait impossible de dire à combien de fatigues et de dangers il fut exposé pendant les plusieurs mois que dura le fléau ; nuit et jour il était sur pied, et, tombant de lassitude, il se relevait pour courir à qui demandait son secours, sans voir dans ceux qui l'appelaient, pauvres ou riches, autre chose que des frères et des concitoyens.

En 1834, il fut appelé par le Comté de Québec à la représentation parlementaire, et siégea comme député de ce Comté dans l'Assemblée Législative du Bas-Canada jusqu'en 1837, époque de l'insurrection.

De 1838 à 1847, Jean Blanchet se consacra exclusivement à la pratique de sa profession, et vécut complètement retiré, ne jouissant du commerce de la société qu'avec quelques amis, et vouant son temps à l'étude et à l'exercice de ses pénibles devoirs ; tenant le sceptre de la chirurgie à Québec, médecin hors ligne, accoucheur célèbre, il avait la clientelle la plus vaste qu'il soit possible à un praticien de servir, et tout le monde, et ses confrères plus que tous les autres, s'étonnaient qu'il pût y suffire.

Le plus beau titre de gloire de Jean Blanchet, celui que nous voudrions voir gravé sur son tombeau, seul et à l'exclusion de tout autre, ce titre il le reçut de la voix commune de ses concitoyens et le voici : *Le Médecin des Pauvres.* Il était le médecin de bien des riches par droit de conquête du talent ; mais il était le médecin des pauvres par droit d'affection. Citons un trait qui nous a été raconté, alors que nous étions étudiant en médecine et qu'élève de feu Denis Blanchet, fils de François Blanchet et cousin de Jean, nous étions admis à la faveur d'assister aux opérations chirurgicales que pratiquait ce dernier.

C'était, si notre mémoire ne nous fait défaut, en 1834, à l'époque du second choléra : un carrosse, attelé de deux chevaux échauffés par une course rapide, s'arrêtait à la porte d'une pauvre maison, à l'extrémité d'un de nos faubourgs, et l'un de nos plus riches citadins en descendait pour frapper à l'humble logis, en donnant des signes d'une agitation et d'une inquiétude mortelles.

Qu'y avait-il donc dans cette pauvre demeure qui pût attirer vers elle ce riche équipage ? Il y avait une malheureuse femme en proie aux douleurs d'un enfantement laborieux et souffrant en même temps d'une atteinte du choléra ; il y avait encore au lit de cette pauvre femme Jean Blanchet, son médecin, que M.*** venait en grande hâte chercher pour l'emmener auprès de son père tombé malade.

Aux coups qu'on venait d'entendre frapper à la porte, la malheureuse femme dirigea vers Jean Blanchet des regards suppliants. On vient vous chercher, Docteur, ah ! par pitié ne m'abandonnez pas...Non, mon amie, répond le *médecin des pauvres*, pour aucune raison je ne vous abandonnerai.

—Mon cher Docteur, dit à notre héros M.***, dans le court entretien qui eut lieu à travers la porte entrebaillée, hâtez-vous de monter dans ma voiture, mon père est bien malade.

—Impossible, mon cher monsieur, dit Jean Blanchet, j'ai ici une pauvre malade qui requiert tous mes soins.

—Mais je vais envoyer mon domestique en toute hâte chercher un autre médecin pour votre malade, et alors, n'est-ce pas, vous viendrez voir mon père ? Vous savez qu'il a confiance en vous, vous êtes notre médecin.

—Je suis aussi le médecin de cette pauvre femme ; impossible de la laisser ; après, je suis à vos ordres.

Le brave citoyen s'inclina devant cette fermeté du devoir ; et Dieu, récompensant son respect pour cette vertu publique et son amour pour son père, sauva celui-ci dont Jean Blanchet est demeuré le médecin.

Jean Blanchet avait été médecin visiteur et professeur de l'Hôpital des émigrés, comme nous l'avons dit, et de plus, membre des différents

bureaux provinciaux pour l'examen des élèves et l'admission des récipiendaires à la pratique des différentes branches de l'art de guérir ; en 1847, il fut nommé médecin visiteur de l'Hôpital de la Marine et professeur de clinique chirurgicale à l'école de médecine.

Les immenses travaux, imposés à Jean Blanchet par le service médical de sa vaste clientelle, le forcèrent à résigner, en 1848, sa charge de médecin visiteur de l'Hôpital de la Marine.

Lorsque fut fondée la faculté de médecine de l'université Laval, en 1853, Jean Blanchet fut nommé doyen de la faculté et professeur d'institutes de médecine et de physiologie.

Jusqu'à l'époque où nous sommes rendu de la vie de notre digne compatriote, sa santé n'avait jamais subi la moindre atteinte ; il avait traversé les épidémies sans en être touché ; mais, vers le commencement de 1854, il fut frappé d'une attaque de fièvres typhoïdes dont il ressentit pendant six mois les effets.

En 1854, il fut élu député à la Chambre d'Assemblée par la cité de Québec et, malgré l'état précaire d'une santé ruinée par les fatigues, il assista régulièrement aux séances de la session législative de la même année. Ce fut encore en 1854 qu'il prononça le discours d'inauguration de la faculté de médecine, à la grande fête universitaire du mois de septembre. Au printemps de 1855, il commença à ressentir les atteintes de la terrible maladie de la pierre, qui le forcèrent d'interrompre presqu'entièrement l'exercice des fonctions multiples dont il était investi.

Ce fut en mai 1856 qu'il se soumit avec un courage incroyable à l'opération cruelle de lithotomie, que lui-même il avait pratiquée quinze fois avec un succès presque constant. Le Docteur Landry, choisi par lui comme opérateur, accomplit la dangereuse opération avec un succès complet, qui fut suivi d'une guérison assez prompte. Mais la santé ne pouvait reprendre le dessus sur cette constitution ruinée par les veilles et les travaux d'une longue vie consacrée à de pénibles fonctions, et le *médecin des pauvres* dut payer le commun tribut de la nature, le 22 avril 1857, à l'âge de soixante-deux ans. C'est Monseigneur de Tloa, confesseur du défunt, qui l'assista dans les derniers moments de sa vie, et qui, fondant son espérance sur tant d'œuvres de bienfaisance de l'illustre mourant, a dû lui dire avec confiance ces sublimes paroles de l'église : "*Allez, ame chrétienne.*"

Comme médecin, Jean Blanchet se place parmi les hommes les plus distingués qu'ait produits le Canada. Son immense pratique en obstétrique lui a fourni un champ d'observations qui s'étendait au chiffre considérable de 12,000 cas. C'est surtout comme chirurgien qu'il était connu ; son aphorisme de prédilection était : *sat citò, si sat benè*, " c'est assez tôt fait, quand c'est bien fait." Aussi, avec quelle précision et quelle sûreté il

procédait, et combien il était habile dans les soins à donner, soit avant, soit après les opérations ! Jean Blanchet a exécuté les opérations les plus difficiles de la chirurgie et avec un succès étonnant ; il a pratiqué plus de cinquante fois les différentes opérations de la hernie, et nous avons nous-même assisté à une ablation du maxillaire supérieur faite par lui avec parfaite réussite sur une dame, dans un cas d'ostéosarcome. Nous avons déjà dit qu'il a pratiqué quinze fois la lithotomie. Nos lecteurs viennent de voir que lui-même fut obligé de se soumettre à cette opération ; au moment où le Dr. Landry allait commencer son incision, Jean Blanchet, attirant son attention, répéta avec un calme remarquable cette maxime qui l'avait guidé dans toute sa vie chirurgicale : " Mon cher docteur, dit il à son jeune chirurgien, " *la sureté avant la célérité.*"

Jean Blanchet est mort garçon ; sa famille, c'étaient les enfants de ses frères qu'il a comblés de bienfaits, ses pauvres et ses élèves, dont deux sont ses neveux, et l'un, M. Hilarion Blanchet, est son successeur dans la pratique.

Les funérailles du Docteur Blanchet ont eu lieu à Québec : les dépouilles mortelles du défunt ont été accompagnées d'abord de sa demeure à la cathédrale, puis, de l'église au cimetière Saint Charles, à la suite du service, par un concours immense de citoyens. Les professeurs et élèves de l'Université-Laval et du Séminaire de Québec, au nombre d'à-peu-près trois cents personnes, suivaient le corps ; les coins du poële étaient tenus par MM. les Docteurs Painchaud, Morin, Bardy, Sewell, Nault et Landry. Le service funèbre, auquel assistait sa Grâce Monseigneur l'Archevêque avec toute sa maison, a été chanté par M. le curé de Québec.

REVIEWS.

ARTICLE VI.—*Elements of Pathological Anatomy.* By Samuel D. Gross, M. D., Professor of Surgery in the Jefferson Medical College of Philadelphia, and formerly Professor of Pathological Anatomy in the Medical Department of the Cincinnati College. Third Edition. Illustrated by 342 engravings on wood. Philadelphia : Blanchard & Lea. Montreal : B. Dawson. Quebec : Middleton & Dawson. 1857.

When we trace the finger of death in progression, ere yet the vital spark has fled, we recognise three great displays as its invincible assaults on the citadel of health, and these we record as examples of death be-

ginning at the head, heart and lungs respectively; that this trifold arrangement cannot always be preserved, should we look for the finger of death, after consummation, when the breath has ceased to vibrate; then a more simple gathering in of the results is admissable, and only two well defined classes allow of discrimination, founded upon a starting point of an entirely different order. Now, the seat of the symptoms is no longer the indication, for these have gone for ever: now, the evidence is no more unintelligible nor liable to confusion, for secondary accidents have no power to complicate and the rule lasts unbroken by intercurrent exceptions. The classes we refer to may be simply denoted by the designations of the *mechanical* and the *psychical*. Every inspection, at which the cause of death is sought for, will reveal one or other of these varieties, and under the two, every example may be enrolled. The question being determined by the obvious conditions under examination.

Let us picture them as they occur, that our meaning may not be mistaken. A patient suffers from pain in the head, convulsions follow, general derangement of the bodily functions ensue, the disorder is fixed in the encephalon, the local signs are unequivocal, after a course of a few days debility becomes a prominent feature, and sooner or later coma ushers in a fatal termination. This is not an uncommon case, the diagnosis is clearly made out to be disease within the head, and at the autopsy the fact is verified by finding a large effusion of serum within the ventricles or poured over the exterior surface; and the plain inference must be, that the cause of death has been mechanical,—the extra fluid compressed the brain unduly, and the deleterious effect was in no way counteracted. The agency and the operation alike were both purely physical. And the inquirer leaves his subject with the idea that had it not been for the presence of that fluid, death would not have occurred as it had. Or, suppose the *post mortem* relict was not an effusion, but an exudation of lymph, the death is yet virtually mechanical—the event may still be referred to the previous compression, which forced out the living embers. Or, if truly inadequate to effect its purpose in this decided manner, as a cause it may still be mechanical; for this distinction does not necessarily import an obstruction, but is equally appropriate in being understood as a physical change. And, in relation to the present subject, is such a change as marks a manifest incompatibility in the part affected with the maintenance of vitality; therefore, under this view, a trivial spot of exudation would stand in the same degree of importance and rank of arrangement as a simple opacity of the arachnoid membrane, or a trajet of ramollissement in the cerebral substance. But there is not always, so to speak, a written pathology: and in contrast appears the psychical—the death of the subject considered apart from its material

connexions. The means whereby, we believed, the result had been brought about have no discoverable existence, and the destructive power has accomplished its object without them; while to increase our wonder, the progress and end have been in no respect different to the course of the former. The patient during life exhibited the same symptoms,—between his case and the former there appeared a perfect parallelism—the pain, convulsions, systemic disturbance and coma obeyed an analagous order of development and succession. Death supervenes. The *post mortem* is expected to account for the event, and to substantiate the diagnosis expressed during life. Instead, however, no mechanical evidences are seen, and, apparently, the organ esteemed during life in an advanced condition of disease, is now, *post mortem*, to the outward eye, perfectly healthy. The examiner experiences difficulty in understanding such remarkable occurrences, such forcible contradictions to the rule of diseased structure. Why, might he ask, did the person die?—there is no physical cause for it. Why were the symptoms so exact a counterpart of those that in other cases attended organic changes? Death clearly works in a double way—mechanically and psychically; and her process, in announcement, in both, wears no outward difference. From the symptoms alone, we cannot always predicate which variety is in progress, and may be misguided into a wrong expectation.

From what has been written, we may define the scope of Pathological Anatomy; this branch of medicine takes cognizance of the mechanical causes of death, but has no concern with the psychical. She is alone occupied in describing changes in structural conformation, or the deviations from the healthy anatomy. From pathology, in a wider sense, she is distinct, as the latter science considers the various functional derangements which simulate the organic lesions or exist in disparity to them. A further separation might also be easily extended between them, but it is unnecessary now to prolong it further. Suffice it to say, that, strictly, Pathological Anatomy should be confined to the description of the mechanical lesion, and is merely morbid Histology; while Pathology enters also upon the detail of the symptoms, causes and diagnosis. This distinction was well exhibited by the present and the former editions of Dr. Gross' work, under notice. This is more properly a treatise on Pathological Anatomy—that was a work more rightly belonging to Pathology; it treated of diagnosis,—this does not. The matter omitted has been replaced by more ample details upon the subjects retained.

The study of Pathological Anatomy, we fear, has not on this continent received the attention it deserves; whether considered in point of value or of interest, its claims to cultivation are equally strong. Of its value, none can doubt; and its interest only requires to be known to be appre-

ciated. Take a single example in illustration. What is more competent to fill the mind with admiration than a survey of the *protection* which is occasionally afforded by disease against impending destruction. An ulcer, in its gradual extension through the coats of the stomach, leads to perforation, by which the danger is, the ingesta will escape into the abdominal cavity, and create a fatal Peritonitis; but against such a direful event a preservative is prepared, in the words of Dr. Gross, "most generally a communication is established with the arch of the colon, the walls of which, as the erosive process extends, are firmly cemented with those of the stomach by means of lymph." The same morbid action is rendered subservient to the aversion of the evil it was permitted to threaten: and by a slight disposal of a few collateral circumstances the patient is transferred from a situation of imminent peril, to one of perfect immunity from danger. The inflammation is restrained within a degree of its energy, its tendency is reduced from ulceration to exudation, the stomach and colon are opposed in close contact, each is cemented to the other by adhesive lymph, and the intestinal wall, acting as the floor, forms the proper continuation of the stomach's parietes and completes the enclosure of the cavity of the latter organ. Food is now taken with the utmost safety, its digestion is as satisfactorily accomplished as ever, and its transmission onwards through the intestinal tract entirely secured. How great an event here appears to have depended upon a small thing, for had not the stomach been thus sealed up at the ulcerated spot, by the approximation of the colon, what could have prevented the food from escaping as it was swallowed, and leading to the serious train of evils which must have ended in death. But such a beautiful protection excites further commendation in being a forcible and instructive teacher. It clearly demonstrates design in its stages,—life was jeopardized and it has been purposely saved; it denies all reference to chance, for this blind influence, if there be such a power, would have been more likely to have spread the first inflammation over the stomach's surface than to have confined it, modified, to a narrow ring. It accords with only one view, than which none other is true; for otherwise we cannot account for the intelligent diversion of the morbid action towards the colon, the beneficent diminution in the grade of the inflammation, and the merciful prolongation of life, than by thankfully referring the whole to the disposal of He who is "not far from every one of us: for in Him we live, and move and have our being;" and the event remains of a pattern with the other matchless operations that the human economy abundantly displays of His unwearied Providence.

We have been favourably impressed with the general manner in which Dr. Gross has executed his task of affording a comprehensive digest of

the present state of the literature of Pathological Anatomy, and have much pleasure in recommending his work to our readers, as we believe one well deserving of diligent perusal and careful study.

ART. VII.—*Manual of Physiology.* By William Senhouse Kirkes, M.D., Fellow of the Royal College of Physicians; Assistant Physician to, and lecturer on Botany and Vegetable Physiology at St. Bartholomew's Hospital. A new and revised American, from the last London edition. With two hundred illustrations. 1857. p.p. 541. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson.

In this third edition there is very little added to what the two former editions contained. It continues, however, to represent in a condensed form the present condition of those parts of physiology which are particularly treated in its pages. There is very little, too little in our estimation, of the structure of the organs and tissues. It is all very well for the author to excuse himself by saying that he omitted to give a more detailed account, "because of the increased bulk which such an addition would have occasioned, and because of the number and excellence of the published works in General and Physiological Anatomy;" but it would have been of great service to the student, and made his handbook the most complete in English language, had he been rather more full on the subject of structural anatomy.

ART. VIII.—*Principles of Medicine.* An elementary view of the causes, natural treatment, diagnosis and prognosis of disease. With remarks on hygienics, or the preservation of health. By Charles J. B. Williams, M.D., F.R.S. A new American from the third and revised London edition. 1857. p.p. 486. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson.

Williams' "Principles of Medicine," is a work of established reputation, and a favorite text-book in the Universities of Great Britain and America. As every student who studies in McGill College is certain to furnish himself with a copy, we need not urge them to do so; but the volume is so replete with information of the highest practical importance, we think the practitioner who finished his studies previously to its publication will derive both pleasure and profit from its attentive perusal.

CLINICAL LECTURE.

On Fetid Bronchitis. By Professor Laycock, of the University of Edinburgh.

(From the Medical Times and Gazette.)

A case of fetid bronchitis, under the care of Dr. Laycock, in the clinical ward of the Royal Infirmary, has attracted some attention from the discovery of the cause of the odour in this disease, and the rapidity with which, apparently, it yielded to strychnine.

Oliver Scott, aged 37, single, by trade a tailor, residing in the Canongate, admitted February 17, 1857.

Patient is 5 ft. 6 in. in height, well formed and tolerably robust. Has the appearance of having been very stout, but the muscular system is now flabby. Diathesis, lymphatic; hair dark; features broad and massive; forehead prominent; conjunctivæ anæmic; eyes grey; nose short and thick, ala nasi expanded; malar bones not prominent; upper lip turnid; mucous membrane of lips and gums pale; teeth small and regular, enamel good. Voice hoarse and whispering; breath gives off a peculiar fetid odour. Sternal end of left clavicle is higher than the right; manubrium sterni depressed. On left side there is a prominence of the third and fourth ribs at their junction with the cartilages. Abdomen rather large and flabby.

History.—Is one of a large family, seven of whom, viz., four brothers and three sisters, are dead. Does not know of what diseases they died. Patient states that in his youth he was very healthy and temperate. Until the age of twenty-five years he followed the occupations of a tailor and hawker, which he relinquished at this time for that of a beer-shop keeper. For five years subsequently he continued well, and though indulging occasionally in liquor, was not, he considers, on the whole, intemperate. Being unfortunate in this line of business, he was compelled to sell his house and resume his prior occupation of hawking. Owing to the depression resulting from his misfortunes, he became very intemperate, and five years ago had a severe attack of delirium tremens, for the treatment of which he became an inmate of the infirmary. After remaining there a month, he was discharged, and he returned at once to his habits of dissipation. Twice subsequently, while in a state of intoxication, he received injuries on the chest, which caused the alterations in its form above noticed. In other respects he continued well until a year ago, when he had a second attack of delirium tremens, and was again an inmate of the infirmary for eight days.

The present illness commenced three months ago, after exposure to severe cold and wet. The first symptom noticed was a troublesome cough, which, however, was unattended by pain or expectoration. This continued until two months ago, when, after repeated exposures to cold and wet, it became more urgent, though still without pain, and with only slight expectoration. Between three weeks and a month ago, the cough increased in violence; there was severe pain in the left side, and sputa was streaked with blood. He noticed now, for the first time, that his breath was very offensive. Since that time the cough has continued unabated; the pain in his side is much increased, and the sputa have been occasionally tinged with blood.

He has not been under medical treatment. Has had no feverishness or thirst from the commencement of the present attack, until four days ago. States that he has lived well during the past seven years. Feels tolerably well, except as to the cough.

Examination on admission.

Respiratory System.—Thoracic expansion is somewhat restricted. The sternal end of the left clavicle is dislocated; manubrium sterni depressed, and the prominence of third and fourth ribs appears to have resulted from an old fracture.

On percussion, anteriorly, the right side of the chest is resonant, as also the upper two-thirds of the left side; the lower third is dull both anteriorly and laterally. On auscultation over right side, inspiration is found to be harsh, expiration prolonged. On the left side inspiration is sibilant, expiration prolonged and attended by fine moist crepitation superiorly, but over lower third, by loud snoring. Posteriorly, percussion is normal. The respiratory sounds are slightly exaggerated on both sides, and at the base of left lung there is fine crepitus with expiration. The cough is very troublesome; sputa copious (about a pint in twenty-four hours) muco purulent, viscid and fetid, but much less so than the breath; some of the masses are tinged with blood. No lung substance is observable under the microscope; but there are abundant pus-globules.

Digestive System.—Tongue furred and moist. Patient complains of great thirst. There is no hepatic or splenic enlargement discoverable on percussion. Bowels open.

Genito-Urinary System.—Urine, sp. gr. 1·032; deposits a copious sediment of urate of ammonia and purpurates. Chlorides abundant.

Circulatory System.—Cardiac dulness two and a half inches transversely at nipple; impulse felt between fifth and sixth ribs. There is a slight blowing murmur at the close of systolic, heard at the apex. Pulse 68, full and firm.

All the other systems normal.

Feb. 17*th.* Pulse 80, full; skin hot and dry. On right side of the chest the respiratory murmurs are harsh, and with forced expiration, snoring. On the left side the respiratory sounds have the same character, but to a greater degree. Posteriorly, forced respiration is harsh on right side: and on left there is snoring with both respiratory acts.

Tongue furred; thirst excessive.

18*th.* To take the following mixture: ℞—Naphthæ medicinalis, ℥ ij; Liquoris morphiæ muriatis, ℥ iij; Aquæ distillatæ ad ℥ vi.—M. Ft. mistura cujus sumat ℥ ss, ter quotidie.

Vespere.—On the right side the sounds are unchanged; but on the left there is sibilus anteriorly, with inspiration and expiration, and fine crepitus at the close of the latter. Patient continues very thirsty. Pulse 80, full. Patient expectorates about a pint in twenty-four hours. Makes no complaint.

19*th.* No sibilus on left side.

20*th.* Considerable pain over lower third of left side. To have a blister applied to the seat of pain.

21*st.* Pain much diminished. Patient is still very thirsty. Sputa increased in quantity.

22*d.* The pain has quite gone. On percussion the dull sound is more marked over lower third of left side. Over the same region posteriorly, the crepitant rale is still heard.

23*d.* The crepitus previously heard over left side anteriorly, is no longer present. There is no sibilus on either side, and over the whole front the respiration is not snoring, although it is harsh. Pulse 60, soft and rather feeble. Sputa much increased (two pints in twenty-four hours). Exhales an odour resembling that of May flowers. Breath still very fetid; the odour is rather feculent than gangrenous.

25*th.* Had a return of hæmoptysis to day at 2 P.M. The sputa were deeply covered with blood. Patient had no pain, and at 7 P.M. the hemorrhage ceased. Expresses himself as feeling well in other respects. The snoring and crepitus have returned on the left side. Posteriorly, over lower half of left side, there is coarse crepitus with both respiratory acts. Pulse 60, very feeble. Appetite good; thirst diminished. Add five minims of tinct. ferri sesquichlor. to each dose of the mixture.

March 2*d.* On auscultation a fine moist crepitation is heard, with inspiration over the whole back. There is no dulness on percussion, although the tone is rather flatter than natural. Vocal resonance everywhere increased.

5*th.* For the last three days patient has been sitting up for about three hours daily. Sputa as copious as before. Still no complaints.

Ordered to omit the other remedies and take one-thirtieth of a grain of strychnia every eight hours.

9th. No crepitus on right side. The breath is not nearly so offensive. Patient feels considerably stronger, and sits up for five or six hours daily. Increase dose of strychnia to one-twentieth of a grain.

10th. The sputa this morning were slightly tinged with blood .The cough was very urgent, but patient had no pain. Continued same treatment.

19th, Strength increasing. Sputa diminished in quantity, and since last report have been occasionally tinged with blood. The fragrent odour has entirely disappeared, and the breath has almost lost its fetor.

24th. The dulness over the lower third of left chest is still present; there are yet crepitations remaining over the corresponding region posteriorly. The expectoration has very much decreased; the sputa amounting to only a half-a pint in the day, contain but very few traces of blood.

27th. The cough is now very slight; sputa measures only 2 oz. per diem. Patient is gaining flesh rapidly.

April 2d. The improvement continues; sputa only 1 oz. in last twenty-four hours, viscid and free from blood.

Dismissed. The expectoration had wholly ceased.

The fetid sputa were examined in the chemical laboratory of the University by the kindness and under the superintendence of Professor Gregory, and the odour was found to be due to the presence of methylamine with butyric and acetic acids.

Comment.—Dr. Laycock remarked that the case would formerly have been regarded as an example of pulmonary gangrene, but it resembled in the leading symptoms the class of cases known as fetid bronchitis. In one point, however, only is there a resemblance to pulmonary gangrene, namely, in the stench of the breath and of the sputa. In the fetid bronchitis the odour is not that of putrid flesh, but very characteristic of butyric and the new odorous compounds, the butyrates of ethyl, now used to flavour confectionery. In the case of Scott the odour was that of the May flower, or of apple blossom, with a conjoint odour—a sort of *arrière gout* of feces.

Scott's case showed other interesting characteristics. First, there was the excessive thirst, out of all relation to the febrile or general disturbance, and referrible probably to lesion of the nervous system—a polydipsia to be attributed to functional disturbance of the pneumogastric centre. Secondly, there was the sensorial hebetude, as indicated by the feeling of well-being and content which the patient always manifested. No feeling of illness, and especially nothing referrible to the lungs was

complained of. This is a condition analogous to that observed in certain cases of phthisis. Thirdly, in the history there was the repeated occurrence of delirium tremens, and the morbid state of the encephalon to be estimated consequently upon it, and upon the continued drunkenness. Dr. Laycock, therefore, concluded that the production in the lungs of the peculiar compound to which the odour of the sputa was due, might be referred to some change in the ganglia of the pneumogastric and of the sympathetic in connection with the pulmonary mucous surface, of an asthenic character. He said he was led to this view by the result of the experiments of Claude Bernard, who had discovered that the irritation of the floor of the fourth ventricle, or, in other words, of the origin of the pneumogastric, was followed by the appearance of sugar in the urine. However, the production of sugar in the organism may be explained theoretically, the facts indicated that the pneumogastric ganglion or the nerve tissues near it and in anatomical relation with the pneumogastric nerves, exercised an action on the blood as it passed through the lungs, so that the organic compounds contained in it would be abnormally altered when abnormal action was set up in them. Hence Dr. Laycock prescribed strychnia in the case of Scott, hoping thereby to modify the state of the nerve-centres, upon which probably the production of butyric acid and the butyrates depended.

THERAPEUTICAL RECORD.

Vomiting in Pregnancy.—Dr. C. G. Quintard succeeded in checking obstinate vomiting in a pregnant woman by cauterizing the fauces freely with a fifteen grain solution of the nitrate of silver.

Prophylaxis of Puerperal Fever.—It is recommended by a French Physician to administer Quinine and Subcarbonate of Iron to lying-in-women who are exposed to the contagion of Puerperal Fever. He prescribes it in eight grains of the former and thirty grains of the latter daily.

Assafœtida in scorbutic ulceration of the fauces.—Dr. Piwowarrow, chief physician of the military hospital at Poltawa, reports that of all the means he has employed in scorbutic ulceration of the throat, assafœtida has proved of the most marked utility, rapid healing taking place, even when the destruction has been considerable.

Cinchonine in Gastralgia.—Dr. Franchini strongly recommends this substance, giving gr. $\frac{2}{3}$ in two scruples of calcined magnesia four times daily, or gr. $\frac{1}{2}$ in the form of pill three or four times a day.

Treatment of Boils.—Dr. Winslow states that he has found his treament remarkably efficacious in the various parts of the world he has tried it in. It

consists in bleeding the patient and giving no medicine. He prescribes the remedy with as much confidence as he gives quinine in ague, and that whether the boil be but a slight one, or assuming a carbuncular form.

Iodate of potassium in affections of the mouth.—Induced by the great success that has attended the employment of chlorate of potass in affections of the mouth, MM. Demarquay and Gustin have tried the efficacy of the iodate of potassium in numerous cases of diphtheritis and gangrenous stomatitis. The success has been considerable, and that in some cases in which the chlorate has failed. The dose employed was from four to eight grains.

Against Ascarides.— ℞. Arsenious acid, gr. 1-6; distilled water, ℥ iss. Let the acid be dissolved in the water, which is to be hot. The intestine is to be cleared of its contents by a simple enema, and then the above solution is to be thrown into the rectum with a syringe of glass.

Borax Enemata in Diarrhœa of Children.—The great utility derived from the employment of borax in aphthæ of the buccal mucous membrane should lead to its more frequent use. Thus in intestinal catarrh of children there is often ulceration around the margin of the anus. In such cases M. Bouchut employs the following enema with advantage:—Borax ʒ j. ad ʒ ij., weak barley-water. ʒ xxxvi.

PERISCOPE,

Treatment of Nævus by the Perchloride of Iron.—The perchloride of iron still holds its place as a very useful agent in the treatment of some forms of nævus. Mr. Lawrence in St. Bartholomew's, and Mr. Cock and Mr. Hilton in Guy's, frequently employ it as at first proposed, by means of injection. Used in this way, its chief advantages are in cases in which the growth is too large to be ligatured or excised. Repeated injections of small quantities at a time, appears to be the most successful method, as larger ones risk sloughing. There was a case recently in the Middlesex Hospital under the care of Mr. De Morgan, in which a nævus of the middle of the upper lip spread rapidly, and ulcerated through the lip, leaving a large fissure. In this, by the use of the perchloride, much advantage has been obtained; the disease did not appear to be spreading. The child's condition is now that of a single harelip, both edges being, however, involved in a nævoid structure. Mr. Bowman, in two cases recently under his care, in which the nævus was on the eyelid, has employed the perchloride, introduced by a thick ligature of silk. One of these was that of an infant at the Ophthalmic, on whom we saw him operate. The nævus was about the size of a sixpence, and involved the centre of the upper eyelid, being partly cutaneous and partly under the skin. To have tied it would have involved a subsequent

eversion of the lid; and it became a problem of much interest to cure it without leaving a scar. The plan adopted was to draw through its centre two large ligature threads previously soaked in the perchloride. To prevent the threads from being squeezed dry in entering the skin punctures were made in the latter with the point of a knife, and a broad needle was employed. So complete was the coagulating power of the fluid, that the threads came out quite unstained, and not a drop of blood escaped from the punctures. This having been done, a small actual cautery, about the size of a probe, was introduced into the middle of the nævus, and made to burn subcutaneously a little patch in its centre. The seton threads were to be taken out the same evening. It was hoped that the irritation, &c., which must follow these procedures, would destroy the morbid vascularity of the part; and the plan altogether struck us as exceedingly likely to be successful, and at the same time possessing the great advantage of being quite free from risk. Its success it will be for time to determine. With the prechloride, in which the nævus is too large to be safely tied, much patience must be exercised. Many injections will be required, and the shrinking of the vascular tissue will often not be nearly so great at the time as it will become after the lapse of a few months. As exemplifying the dangers of the ligature, we may mention that the writer assisted a fortnight ago in tying a very large nævus on the side of the face in a case in which the infant, healthy at the time, died a week afterwards, and probably from the irritation caused.—*Medical Times and Gazette*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

Professional Secresy.—The relations of a physician to those who favor him with their confidence are of so intimate a nature; he has so many opportunities to become acquainted with matters, occurring in families, that ought to be held sacred by him and remain securely locked in the deepest recesses of his bosom; he is so often selected as the confidant to whom the wretched, sorrowful, and repentant entrust their tale of guilt, remorse, and grief, it becomes him to be a man of extended sympathies and high uncompromisable honour to command the esteem of his patients and make them feel that their simplest as well as greatest secrets are perfectly safe in his keeping. From the earliest periods in the history of medicine down to recent times, the fathers in medicine

and those entrusted with the preparation of the medical neophyte for the practice of the important duties of his profession, have thought it incumbent on them to exact an oath from each successful candidate, that he would never betray any secret entrusted to his keeping, or one that he should accidentally become cognizant of, professionally, ere they invested him with the authority to go forth into the busy world and assume the responsibilities of physician to his fellows. It was never intended, however, that a medical man was to remain silent whenever facts relating to fearful crime, such as murder, either accomplished or contemplated, came to his knowledge. No oath could be binding on a man, or warrant him in assisting to defeat the ends of justice. Under such circumstances, silence would be criminal and make him accessory to the fact. Instead of meriting praise for keeping secrets of that nature he would rather deserve the execrations of society.

An event has lately occurred in the city of New York which has caused a great deal of excitement in the community and involves the question of the betrayal of trust on the part of a physician. We propose laying in brief terms, the facts of the case before our readers, with our views on the subject. The notorious Mrs. Cunningham, *alias* Mrs. Burdell, who a short time since was tried for the murder of Dr. Harvey Burdell, and acquitted, has lately attempted the perpetration of a criminal fraud, formed for the purpose of obtaining the whole of the late Dr. Burdell's property. It appears that while this lady was confined in the Tombs awaiting her trial for murder, she caused it to be announced that she was pregnant with child and that in due time an heir would be born to Dr. Burdell's estate. Her personal appearance justified the assertion, and, at her request, Judge Dean gave an official notification of the circumstance. Mrs. C. next consulted Dr. Uhl, who would appear to have been her medical adviser, and desired to engage his services. Subsequently she told him that her pregnancy was a pretence, but that if he would aid her in carrying out her plans to a successful issue, one thousand dollars would be his fee. The services of one Dr. Catlin, an individual whom Mrs. Cunningham professes "to have in her power," were also secured for the interesting occasion. Dr. Uhl apparently assented, but his conscience not feeling very easy, he immediately informed District Attorney Hall of everything that had transpired. By the advice and at the urgent request of Mr. Hall, Dr. Uhl entered enthusiastically into Mrs. C's plans, with the view of exposing the attempted fraud and bringing the guilty ones to justice. "To carry on the project, he represented that he had the good luck to have found a woman who was about being confined in Elm street, who would part with her baby. She was neither to see or know Mrs. Cunningham, and therefore there could be no possi-

bility of any unpleasant developments. Apartments were procured at 190, Elm street, and were furnished by Mr. Hall for the proper reception of a lying in-woman. Meantime officers Dilks, Hopkins, Speight, and Walsh were detached to keep a close look out in Bond street. Mr. Hall assisted himself on Monday in perfecting arrangements. An infant that had been born on Saturday was engaged from its mother at Bellevue Hospital, marked by lunar caustic, and otherwise identified, and a nurse engaged. Dr. Uhl was to be at Elm street to deliver over the baby to the Sister of Charity who was to call for it.

All things being ready, Mrs. Cunningham was notified that the heir was born, and she said she would send a lady (whose name she refused to give) to look at the place, so as to know where to go at a later hour. Dr. Uhl stationed himself at 190, Elm street, and kept watch for the lady who was to be sent to reconnoitre the premises; and in a short time a person made her appearance, passed by and inspected the place. That lady, although in the disguise of a Sister of Charity, Dr. Uhl recognized as Mrs. Cunningham herself. As soon as she had left the neighbourhood, Dr. Uhl again visited No. 31, Bond street, when Mrs. Cunningham called a lady, whom Dr. Uhl recognised as her sister (Mrs. Burns,) into the room, and asked her if she was ready to go for the child, when Mrs. Burns asked for the dark dress, and Mrs. Cunningham told her where it was. It was then arranged by Mrs. C. and the doctor that he should go to No. 190, Elm street, and wait at the front hall till the lady to be sent should come; and in order to avoid any mistake in the matter, the lady was to carry a white handkerchief in her hand. After waiting about fifteen minutes, the lady appeared who had previously reconnoitred the premises, carrying, as agreed upon, a white handkerchief in her hand. The lady wore a long black dress, and a hood or close bonnet, after the style worn by the Sisters of Charity—her face being almost covered; but from her manner, form, and general bearing, Dr. Uhl again recognized her to be none other than Mrs. Cunningham herself. Dr. Uhl asked her if she had come for the child. She made no reply, but followed him up stairs to the door of the room. The light burnt dimly on the centre table, the door which opened into the adjoining room displayed the foot of a cot on which the sick mother was supposed to be prostrate. Mrs. Cunningham only looked in, but a glance must have satisfied her all was right; the nurse, Mary Regan, sat with the child in her lap, the basket at her feet; as Mrs. Cunningham presented herself, she was asked if she came for the child, as agreed upon, she shook her handkerchief in reply, the next instant the "little thing" was placed in the basket and handed through the partially opened door, and Mrs. C. hurredly left the house. Dr. Uhl then

started for home, leaving those engaged with him in the plot to attend to Mrs. Cunningham's movements. The doctor had been at home but a brief period, when he received a summons through a gentleman (a stranger) to repair immediately to 31, Bond street, as Mrs. Burdell was then suffering with labor pains. On arriving at the residence of Mrs. Cunningham, he was conducted to a darkened room, where Mrs. Cunningham was in bed and apparently in great suffering. Dr. Catlin and Mrs. Burns, sister of Mrs. Cunningham, were present. Dr. Catlin brought in a pail containing blood, with which the sheets were saturated; and, in due time, after considerable groaning and moaning, the expectant heir was brought forth and transferred over to the nurse, Jane Bell, who washed and dressed it, while the doctors went through the process of bandaging the suffering but delighted mother; who took occasion to exclaim, with much earnestness, that "she had put her trust in God, and in return he had been pleased to favour her!" At this stage, Dr. Uhl left the house and the case to the charge of others, who were on hand at the door. All this farce was performed on Monday night, between eleven and twelve o'clock. At half past eight the policemen in the secret took their stations, Capt. Dilks, in Broadway opposite Bond street, Capt. Speight opposite Burdell's house. Capt. Hopkins took up his station in the alley which leads from the rear of 31, Bond into Bleeker street, when he was mistaken for a burglar, much to the alarm of the neighborhood. Capt. Speight saw Mrs. Cunningham come out of the house, followed her to Elm street, and saw her return to Bond street, the basket containing the baby in her possession. The policemen then took their stations in front of the house to observe who went in or out. Among the latter was Catherine Bell, the nurse, Dr. Catlin, and lastly Dr. Uhl. About twelve o'clock at night the police started towards Broadway, when they met District Attorney Hall, Capt. Dilks, Dr. Montagnie, and Officers Smith, Wilson, and Walsh.

After a little conversation, it was agreed that Capt. Dilks and Dr. Montagnie should go to 31 Bond street, and state that they had heard that a curious delivery had taken place, and that they wanted to see that all was right. Two women answered the summons, and stated that Mrs. Cunningham was too sick to be seen. The women then went up stairs, and the men followed. Before reaching what was Dr. Burdell's bedroom, the women opened the door and said, "Mrs. Burdell, here are two gentlemen who want to see you." She said, "Shut the door; they can't come in." Dilks immediately went in and said, "Madam, we don't wish to interrupt you seriously, but we have heard that you have been delivered under suspicious circumstances, and it is our duty to inquire."

The light was then down; they turned it up, and saw by her side a sleeping infant. Dr. Montagnie recognized it as the child he had carried to Elm street. He had previously marked it with a little lunar caustic under each armpit and under each ear, marks which did not appear until next day. He had also cut the umbilical cord anew, and retied it with the edging of a pocket-handkerchief which there could be no mistaking.

Dr. Montagnie said to Mrs. Cunningham, "Whose child is this?" She said, "It is my child." He asked if it was the child of Dr. Burdell. She said, "Yes, of course! whose else could it be? I am his widow."

Almost immediately Dilks came down to the door, and the police went up stairs. Those present were apprehensive that the child might be killed, and an attempt was made to take it away from her at all hazards. She said, "Don't take my baby!" and the woman persisted in saying, "You must not take this baby; it is Mrs. Burdell's baby." One of the police asked, "Where is the basket that it was brought here in?" She said, "There is no basket in the place." A policeman then said, "There was no use making any disturbance about it; the doctors were arrested, and everything was found out; the child belonged to the Bellevue Hospital." The hospital clothes had been taken from it, and new and elegant apparel, evidently made for the purpose, had been put upon it. In the back room—the room in which Dr. Burdell was murdered—the police found the remains of a lunch. Meanwhile Mrs. Cunningham still persisted that she had been in labor, and was suffering with after pains. The basket could not be found, high or low. The after-birth that Dr. Montagnie brought from the Bellevue Hospital was there; a pail of bullock's blood was found, and the sheets smeared with blood."

Now the question which has been mooted in the United States, in reference to the conduct of Dr. Uhl, viz: was he warranted in betraying secrets revealed to him professionally? is, we conceive, easily answered. Mrs. Cunningham contemplated the commission of a crime which would, if successfully carried out, have seriously injured the interests of other parties. It was absolutely necessary to the success of the plot that a physician should be made cognizant of the whole details, and induced to work in harmony with others. Whatever guilt was attachable to any one concerned in the criminal act would be equally attachable to him. When Mrs. Cunningham, therefore, informed Dr. Uhl of the fraud which she intended to perpetrate, and requested him to become a party to it by an attendance on her during the pretended accouchement, she virtually asked him to criminate himself by aiding her to play the villain. The oath which Dr. Uhl subscribed to on the day of his graduation, was never intended to impose silence on him under such circumstances. His

duty to himself, to society and to the miserable woman was perfectly clear. When the proposition was made, he ought immediately to have declined having anything to do with it; he should have given her distinctly to understand that he would not consider himself bound to withhold his evidence against her in the event of the crime being committed; and lastly, he should have seriously warned her against the criminal course she intended to pursue. In neglecting to act in this manner, pursuing indeed a most opposite course, and *not* in betraying professional secrets, has Dr. Uhl, in our opinion, acted unprofessionally, and laid himself open to the severest censures of his confreres. Instead of firmly and manfully refusing on the instant to have lot or part in the fraud, he wilfully deceives Mrs. Cunningham by accepting with apparent eagerness the terms of her proposition. He not only does this, but he informs District Attorney Hall of what has transpired, at whose request, moreover, he consents to act out a falsehood, and by so doing lead on a female to the commission of a crime. We have yet to learn that such an act is either morally right, or one that is becoming in a member, either of the legal or medical profession. It is the undoubted duty of all to prevent the commission of crime, and to aid in its detection when committed, but who ever tempts his fellow to do a criminal action by placing facilities in his way, ought certainly to be considered an accessory, and judged accordingly. Dr. Uhl has acted unprofessionally also in becoming the agent of Mr. Hall, a sort of detective or spy in the service of that gentleman. Had he, when he lodged information with the authorities, washed his hands of all further connection with the deceit, we could have nothing to say against him, but by becoming the very life and soul of every move in the deception, he prostituted the noble profession to which he belongs, and should, as a punishment, be deprived of the status he holds in that profession.

Criminal Abortion.—A short time ago a charge was brought against a Medical Practitioner here for having produced Abortion;—he was accordingly handed over to justice, and the result, we believe, is still pending his future trial. Without desiring to engender any public animosity or prejudice against the degraded offender, we conceive that the subject in its general bearings as a crime is deserving of consideration, from having reason to know that there are doubts abroad concerning the impropriety of the offence, as well as mistaken notions of the degree of punishment it deserves; and it is merely in relation to these we offer the following remarks, moved by no other feeling than a desire to put forth matters in their true light.

The morality of the ancients was very low, and but little compunction was felt by them in destroying the offspring at an early age after its developement had begun. But their ignorance often would extenuate their monstrosity, for they did not in many cases believe that the embryo received vitality till a period remoter than the time when the miscarriage had been induced. The earliest statement of the inception of life among their records, is by Hippocrates, or rather by the writer of a tract assigned to him, who held that the fœtus was not endowed with life till 30 days after conception if it were a male, and 42 days after if a female. Others, however, fixed upon a more advanced date, and even the learned Zacchias, the Roman Medico-Jurist, doubled the period and settled upon 60 days.

It is pleasant to contrast with these reminiscences of the dark ages, the extent of our present belief founded upon more exact science and intimate inquiry. We now contend that vitality immediately succeeds conception,—the new being enjoys existence from its first developement, and from the first moments of genesis is manifested, in a progressive growth, an active life. And this is no mere scientific abstrusity, but a doctrine enforced by legislation. The law recognizes the life of the fœtus *in utero matris*, as the phrase is, she admits the propriety of the unborn offspring to her protection, and affords it the justice which its entity demands when injured. And moreover, she allows that life begins from the earliest period of existence; in short,—she sanctions the modern propositions we have first contended for. By the law, an infant is the inheritor of real estate from the moment of its conception; its existence being made to date from its earliest germination, and to extend throughout the whole time of its intra-uterine abode: the embryo is thus clearly alive, legally, *ab initio*, for it may be invested at its conception with the inheritance and the rights appertaining to the owner of real estate.

The most important consequences follow by the law's admission of the propriety of the unborn offspring to her protection, and its right to the justice which its entity demands when injured,—and of this a still further example is furnished by our present subject. We find, in the criminal code, that if injury be done the fœtus it is avenged: if such violence be used towards the mother that the child die in consequence, the crime of Feticide is committed, which is regarded as a heinous misdemeanor. This is Abortion; and here we would remind all who are tempted, and Physicians often are tempted by patients themselves, of the great peril to which the "heinous" practice if effected would expose them. According to Canadian law, whoever is convicted thereof, shall be liable at the discretion of the Court, to be imprisoned at hard labor in the Provincial Penitentiary for the time of his natural life, or for any term not less

than seven years, or to be imprisoned in any other prison or place of confinement for any term not exceeding two years. Attempts are frequently made to establish degrees of criminalty. The severe punishment above specified is alleged to be condign when the mother is quick with child; and for the same offence at an antecedent period of pregnancy, no express measure of infliction has been specifically apportioned. But such a distinction, in the case of Feticide or Fœtus murder, is about as unpardonable as it would be to divide Homicide into shades of culpability according to the age of the person killed; awarding a less heavy punishment to the murderer of a boy than to the murderer of a man, because—and no better reason is given for the mitigation of sentence against abortionists before quickening—the boy was an immature man. Quickening does not shew an inception of life, but is merely a manifestation, and a late one, too, of life, late—because so long delayed as to have been forestalled by many other vital signs equally reliable. Quickening rather than being the exponent of life, is an evidence of viability, and therefore declares that the child has acquired such an amount of organic power as to have an aptitude for sustaining an extra-uterine existence or separate maintenance—and that previously this power had not sufficiently grown to produce the movements that give it character. This view is well attested by the correspondence that holds between the periods of viability and those of quickening commonly admitted. Ramsbotham, as an authority, says, quickening generally occurs "about the end of the fourth or commencement of the fifth month," *i. e.* it now *first* supervenes; and early though this be for a personal survivorship, yet facts shew that there are instances of life-continuing children even then. There are three cases of children being born at the 5th month of utero-gestation who continued to live for some time. The first of these was seen by Dr. Montgomery of Dublin—it only lived a few minutes. The second by Mr. Smythe, and it lived for 12 hours: from peculiar circumstances it was clear that the mother of the infant was correct in respect to dates, and the case is received as authentic by Mr. Taylor, who records it in his Manual of Medical Jurisprudence. The third is that of Cardinal Richelieu, on account of whose early birth the Parliament of Paris decreed that the infant at 5 months possessed that capability of living to the ordinary period of human existence which the laws of France required for establishing its title to inheritance. Now, if we descend the scale of uterine longevity we arrive at the next period—between the 4th and 5th month—and even here two cases of viability appear. One, that of Fortunio Liceti, an Italian Physician, who was born between the 4th and 5th months of utero-gestation, and who attained the age of 80 years, and a case mentioned in Taylor (Op. Cit.) of a child born at the 4th month of pregnancy, and living.

With the natural doubts that some of these statements *prima facie* arouse about their credibility, we having nothing to do; for if we merely receive them unitedly, one single fallacy, or even individual exceptions, cannot destroy the general veracity: and through this the original or leading truth is substantiated. They prove that to limit the extreme punishment of Abortion to the time of quickening, is to avenge the death not of a living but of a viable child. The fundamental object must then elude legal cognizance: for the desire is not to preserve life, and murder ceases to be the destruction of life; but the endeavor is to substitute in each instance for this great principle,—*i. e.* life,—one of its less proximate acts. The law incarcerates the Abortionist most long, not so much because the child had life as because it moved, and not that it was made dead, but rather because it could no longer quicken. The defectiveness of Juridical discrimination in these cases is rendered yet more evident by the above data. They fix upon the 5th month, *at least* as an indisputable term of life: and are sufficiently numerous to warrant our imputing viability to other children at that period. Plain though this be, still we cannot always be guided by even such a rule in criminal cases, as in these the utmost rigor of the law may yet be defied,—for it may happen that although the age of the pregnancy has been definitely ascertained, the usual period of quickening has transpired without this event accruing. So that in reality there is no safety in the legal protection of children in utero whose mothers do not feel quickening till later than the 5th month, an accident by no means improbable, as this sign of gestation is often very retarded in its appearance, and sometimes never once supervenes; and although there be the general similarity before shewn, between it and viability, in point of time, there is no correspondence as regards mutual indication, for the offspring may be viable when the mother does not experience quickening.

We, therefore, claim an equal punishment for abortion at whatever period of life this diabolical act may be criminally perpetrated, for in our eyes, the murder is as true at one age as at another, and to us the embryo with its growing faculties is as sacred an object for preservation as its more developed because elder neighbour.

OBITUARIES.

Thenard, the celebrated chemist, has just died, at the advanced age of eighty. He maintained his ardent love for science to the last, and will be especially missed by young aspirants for scientific honours, whom he especially delighted to encourage. He has died universally regretted; and the Académie des Sciences, on hearing of his death, which took place

the evening before their weekly meeting, at once adjourned, as it its excellent custom whenever it loses one of its celebrated members. One of the last acts of M. Thénard's admirable career was the foundation of a new Benevolent Society for scientific persons, or, as he styled them, the friends of science. He was formerly a Peer of France and Chancellor of the University, as also a member of the Institute, and a Grand Officer of the Legion of Honour. He taught by turns at the Sorbonne, the Ecole Polytechnique, and the College of France; and he has endowed his country with a work on chemistry, which has remained for forty years, and passing through six editions, the most esteemed book on that science. M. Thénard possessed large property, which he used in a most generous and Christian manner, his last act of philanthropy being the foundation of a society for the relief of scientific men in distress, his first subscription amounting to £800. Dumas, who was twenty years ago the pupil of Thénard, pronounced over his tomb an eulogium full of grief and affection, by which all the assembly was deeply moved.

Sestier—Another of the rising celebrities of the Paris Medical community has been cut off, like his friend Valleix, in the prime of life. He had conquered an important position through the concours, and had produced an excellent monograph upon Œdema of the Glottis. He has left a valuable work upon the effects of lightning, unfinished.

Gueneau.—Dr. François Gueneau de Mussy died at Paris, May 4th, at the age of 83. He was a member of the academy of medicine, and formerly a physician of Hôtel-Dieu. He was eminent as a man of science; but it was chiefly on account of the noble simplicity and rectitude of his character that the profession glorified him. As Lamb would say, he had someting of the old Roman height about him.

Sir James Eyre, M.D—Died at the residence of a friend at Clapham, on Friday morning, the 19th inst. He had attended the Queen's levée on the previous day, retired to bed in his usual health and spirits, and was found dead early in the morning. Sir J. Eyre was for many years in general practice at Hereford, and was knighted on the occasion of his presenting an address to the Queen from that town (of which he was then Mayor), on the birth of the Prince of Wales. He subsequently settled in London, and practised for some years in Brook street. He published a work "On the Use of Oxide of Silver in Uterine Affections," and another entitled "The Stomach and its Difficulties." Both of these productions were of a semi popular character, and had a large sale. Of late Sir James had partially retired from practice, and resided at Brompton. He was sixty-six years of age.

Sir Robert Carswell, physician in ordinary to the King of the Belgians and formerly professor of pathological anatomy at University College, expired at his residence at Lacken, near Brussels, on the 15th inst., aged sixty-four.–His Pathological plates are well known.

SECRETARY'S OFFICE,
Toronto, 1st August, 1857.

MEDICAL APPOINTMENTS IN AUGUST.—His Excellency the Administrator of the Government has been pleased to grant a License to Harvey John Philpot, of the Town of Simcoe, Esq., M.R.C. of Surgeons of England, to practice Physic, Surgery, and Midwifery in Upper Canada.

August 8th.—Jacob Baxter of Cayuga, William McPherson and William McCargow of Caledonia, Esqs., physicians, to be a Board for examining applicants for Militia Pensions in the County of Haldimand.

QUARTERLY REPORT OF THE MONTREAL GENERAL HOSPITAL, ENDING 28TH JULY, 1857.

DISEASES AND ACCIDENTS.

DISEASE.	ADMITTED.	DIED.
Abscessus,	3	...
Amaurosis,	1	...
Ambustio,	17	1
Amputatio,	2	...
Anasarca,	1	...
Arteritis Chron.,	1	...
Ascites,	1	...
Bronchitis,	5	...
Bubo,	1	...
Bursitis,	1	...
Calculus Vesicæ,	1	1
Caries,	2	...
Cataractus,	2	...
Cephalalgia,	3	...
Cerebritis Chron.,	3	...
Cholera, Canadien	1	1
Colica,	1	...
Conjunctivitis,	12	...
Contusio,	9	...
Corneitis,	6	...
Cynanche Tonsillaris	3	...
Debilitas,	5	...
Delirium Tremens,	6	1
Diarrhœa,	5	...
Dyspepsia,	14	...
Dysuria,	1	...
Eczema,	1	...
Enuresis,	1	...
Enteritis,	1	...
Encephaloma,	1	1
Encephalitis Acut,	1	1
Emphysema,	2	1
Epilepsia,	3	...
Epithelioma,	1	...
Erythema Nodos,	1	...
Erysipelas,	5	1
Fractura Simp.,	1	...
Fractura Comp. et Com.,	5	...
Febris Commun. Con	17	...
Febris Ephemar,	1	...
Febris Intermit,	5	...
Fistula in perineo,	2	...
Fissura Glossæ,	1	...
Gastritis Chron.	3	...
Gastrodynia,	1	...
Gonorrhœa,	8	...
Hæmoptysis,	2	...
Hæmorrhagia Uteri,	1	...
Hæmorrhoides,	1	...
Hepatitis Chron.,	1	...
Hemiplegia,	1	...
Herpes,	2	...
Hypochondriasis,	1	...

DISEASE.	ADMITTED.	DIED.
Hypertrophia,	1	...
Hydrocele,	1	...
Hydrothorax,	1	...
Icterus,	1	...
Impetigo,	2	...
Laryngitis Chron.,	1	...
Lichen,	1	...
Luxatio Ulnæ	1	...
Lumbago,	1	...
Menorrhagia,	2	...
Morbus Cordis,	1	...
Morbus Coxæ,	1	...
Necrosis Tibiæ,	1	...
Ophthalmia Purul.,	3	...
Ophthalmia Traumat.,	1	...
Ophthalmia Tarsi,	1	...
Obstipatio,	1	...
Orchitis,	1	...
Paronychia,	5	...
Paraplegia,	1	...
Parotitis,	1	...
Paraphymosis,	1	...
Peritonitis,	2	...
Periostitis,	1	...
Phagædena,	1	...
Phthisis,	11	2
Pleuritis,	1	...
Pleurodynia,	3	...
Pleuropneumonia,	1	...
Purpura Hæmorrhagica,	3	...
Purpura Nautica,	1	...
Prolapsis Ani,	1	...
"Ramollissement" Cerebri,	1	...
Retentio Placentæ,	1	...
Rheumatism Acut,	1	...
Rheumatism, Chron.,	17	...
Sinus,	1	...
Staphyloma	1	...
Strabismus,	1	...
Scarlatina,	3	...
Subluxatio,	1	...
Strictura Urethræ,	2	...
Strictura Œsophag,	1	...
Synovitis,	5	...
Syphilis,	9	...
Tumor,	2	1
Ulcus,	11	...
Variola,	15	...
Vena Varicosa,	1	...
Vulnus,	10	...
Vermes,	1	...
	325	11

Patients remaining from last Quarter,	59	Died during Quarter,	11
Admitted present Quarter,	325	Now in Hospital,	46
		Discharged,	327
Total,	384	Total,	384

IN-DOOR PATIENTS.		OUT-DOOR PATIENTS.	
Males,	194	Males,	644
Females,	131	Females,	746
Total,	325	Total,	1390

OPERATIONS &c., DURING THE QUARTER.

Major.—*By Dr. Howard*—Lithotomy.

By Dr. McCallum—Amputation at upper third of thigh, and removal of fibroid tumor from lip.

By Dr. Sutherland—Extirpation of testicle.

By Attending Physicians—Trephining skull 1. Amputation of fingers 3. Ligature of hæmorroids 2. Tumors removed, encysted 1. Painful subcutaneous 1. Operations for strabismus 4; for ectropion 2; for pterygium 2; for cataract 4 (Keratonyxis). Hydroceles tapped 2. Hydrocele injected 1. Knee joint tapped and injected 2. Tapped alone 2. Total 31.

Minor.—Venæsections 12; Cuppings 16; Wounds dressed 27; Frænum linguæ divided6; Vaccinations 5; Abscesses opened, and other incisions, 157; Starched bandages applied 30; Teeth extracted 202. Total 455.

Fractures and Dislocations.—Fractures treated, in-door, 9; out-door 6. Total 15. Dislocations reduced, humerus 1; radius 1; radius and ulna 1. Total 3.

Attending Physicians.—Drs. Fraser and Reddy.

ROBERT CRAIK, M.D.,
House Surgeon.

MEDICAL NEWS.

We notice that Professor R. M. Huston, has resigned the chair of materia medica, which he has so long filled in the Jefferson medical college.—He has been succeeded by Dr. Mitchell—In the midst of a splash of excrementitious folly, about the circulation, we find this verdant bog. "The visible heart performs this function, because there is a corresponding spiritual heart within it." The function referred to, is describing to be throwing, "the blood to the finest

ramifications of the vascular system, and magnetically calling it back again."—An additional subscription of £45, collected in Russia by His Excellency, Dr. Markus, has been received. Dr. Redfern of Aberdeen, has transmitted £16 collected by himself.—Dr William Pultney Alison has been granted a pension of £100, from November the 10th 1856 in consideration of his scientific attainments. He was late Professor of Physic in the University of Edinburgh.—The minister of war has sanctioned a proposal, that assistant surgeons for service in the Army, shall henceforth be selected from a competitive examination. The first examination was to have taken place July the 16th. and the vacancies to be filled up were 20 in number—At the last half yearly meeting of the Royal Humane Society, an honorary medal was unanimously awarded to Mr. Erasmus Wilson: who saved a woman aged 60, in the Regent's Canal, Regent's Park, last April.—In 1737, the physician who attended Queen Caroline had 500 guineas, and the surgeons 300 guineas each—Dr. Willis for his successful attendance on George the Third, was rewarded with £1,500 per annum for twenty years, and £650 per annum to his son for life. The other physicians had 30 guineas each visit to Windsor; and 10 guinea each visite to Kew.—The wine account of Guy's Hospital, for 1856 ammounted to more than $5,000. This estimate does not include the spirits account. which nearly reached $2,000.—Medical journalism. has penetrated to the antipodes. A periodical, entitled the Australian medical journal, has recently been established at Melbourne—It is stated in the Gazette medical de Paris; that of 3.295, 220 young men examined in France, for military service during 19 years. 13,007 were exempted for myopia.—The largest man in the world, as said, died lately in Henderson County Tenn. His height was *seven feet six inches*. His weight was a fraction over 1000 pounds. It required 17 men to put him into the coffin. Took over 100 feet of plank to make his coffin. He measured arround the waist 6 feet and 9 inches.—At the Thames Police Court lately, a person was fined 40s. for selling arsenic uncolored, by which death was caused.—Electricity has been used for cooking, by M. Gisquet; an oil refiner of Paris. By means of a special apparatus, six pounds of beef were cooked, in five minutes and ten seconds.—Mrs. Gavin widow of the late Dr. Gavin, the Government Sanitary Inspector in the Crimea, has been granted a pension of £50.—M. J. Nickles has not only found fluorine in human blood, but likewise in that of other mammalia, as the pig, sheep, ox and dog, and in that of many birds, as turkeys, geese, ducks and chickens. He has also found it in the bile, in the albumen of egg, in gelatine, in saliva, and in fact in the entire organism.—

Three faces wears the Doctor; when first sought
An Angel's—and a God's the cure half wrought:
But when that cure complete he seeks his fee,
The Devil looks less terrible than he.

THE

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ORIGINAL COMMUNICATIONS.

ARTICLE XV.—*Cases in Surgery.* By D. C. MACCALLUM, M.D., M.R.C.S.L., Professor Clinical Surgery, McGill College; one of the Surgeons to the Montreal General Hospital, &c.

Case 1.—*Restoration of side of Nose and anterior part of Cheek, by a Plastic Operation.*

C. S——, aged 55, a native of Scotland, was admitted into the Montreal General Hospital, Feb. 24th, 1857. He states that he is a farmer by occupation, and his general health has always been good. His parents died when he was quite young; they were supposed to have inherited a tendency to phthisis, but he does not know of what disease they died. About fourteen years ago he first noticed a small warty growth in the sulcus formed by the junction of the ala of the nose with the left cheek. At its commencement it was very small, not exceeding in size "a pin's head." The top of this growth frequently dropped off in the form of a thin scale, leaving behind it a smooth reddish-looking tubercle, which was somewhat sensitive when touched. It remained much in the same condition for four or five years, undergoing scarcely any perceptible change during that period. It now, however, commenced to ulcerate, and increased rapidly to the size of a "threepenny piece." His friends having told him that it was "a cancer," he became alarmed, and

immediately applied to a physician for relief. The gentleman whom he consulted completely destroyed the ulcer by repeated applications to it of the nitrate of silver in the solid form, and having subsequently applied a wash, it readily cicatrized. Four years afterward the growth reappeared in the cicatrix, and having again ulcerated, it proceeded gradually to destroy the adjacent parts, notwithstanding the various remedies that were tried at different times, to stay its progress, by different practitioners. Up to last September—that is, during five years—the ulcerative process had extended so slowly, it had involved merely a slight and superficial portion of the cheek, and a small portion of the ala of the nose. Having heard that a "cancer doctor," residing in Kemptville, was effecting wonderful cures by means of a plaster, he placed himself under the care of the quack and had the plaster applied. It produced intense inflammation, accompanied by excessive pain, and was followed by extensive destruction of the soft parts. When the slough separated, it exposed a red granulating surface, having much the same appearance as it now presents. His patience being almost entirely exhausted, he resolved, as a *dernier resort*, to visit Montreal and ascertain if any thing could be done to remove the disease and obviate the deformity.

When admitted into Hospital, his general appearance justified his assertion that he was in excellent health. There was no emaciation, nor the slightest trace of cachexia. His face, however, was frightfully deformed. The cartilages and soft parts of the left side of the nose, with the exception of a small portion at the tip and a narrow margin along the bridge, were entirely destroyed. A considerable portion of the ascending plate of the superior maxillary bone, the anterior wall of the antrum and the inferior extremity of the nasal bone, with the soft parts forming the upper and anterior part of the left cheek, had also been removed by the action of the caustic paste. A portion of the wall of the antrum, at the outer extremity of the superior maxilla, was in a state of necrosis, and projected slightly. The whole of the exposed surface was covered with healthy granulations; and the edges, which were firmly adherent throughout, had a smooth, regular and healthy appearance.

Having previously taken, with gutta percha, an accurate mould of the parts to be restored, I proceeded to operate on the 5th March, the patient being under the influence of chloroform. I first detached the tissues from the bone adjoining the necrosed wall of antrum, and then removed the dead portion with a gouge. I next freed the edges wherever they were adherent, passing the scalpel for some distance beneath them, for the purpose of allowing their closer approximation. The edges being refreshed by removing a thin slice from them, the gutta percha

mould was placed over the upper and outer part of the cheek, and a thick flap, removed the pedicle being formed from above near the outer angle of the orbit. This disposition of the pedicle allowed the flap to be readily turned into the vacant space without the slightest twisting of any portion of it. The circumference of the flap was then accurately applied to the pared edges and retained by points of interrupted suture. The edges of the space left by the removal of the flap were brought together by one point of twisted and two of interrupted suture. Scarcely any bleeding occurred during the operation; two or three small arterial branches spirted after division, one only of which, however, required a ligature. The left nostril was lightly stuffed with lint, and the whole covered with water dressing.

March 6th.—Patient passed an easy night. Pulse 84; soft and full. There is some œdematous swelling of the lower eyelid; otherwise, everything appears to be progressing favourably.

March 7th.—Parts apparently united. Transplanted flap of a healthy colour and natural temperature. The integument of lower lid still swollen, and exhibits a somewhat erysipelatous blush. Pulse 86; full and soft. Tongue thickly coated in the centre with a yellowish-white fur. ℞. Pulv. Rhei. grs. xii.; Hyd. c. cretæ, grs. x.; M. ft. pulv. To be taken immediately.

March 9th.—All erysipelatous appearance has disappeared. Removed to day all the threads of suture and the needle. Union by primary intention has taken place nearly throughout, the exceptional points being a small place by the side of the pedicle, and the opening through which the ligature issues. Dressed it with adhesive plaster.

On the 10th, the ligature came away, after which the suppurating points gradually cicatrized, and he left the hospital on April 7th,—the deformity in a great measure obviated, and his appearance vastly improved on what it had been.

Case 2.—*Removal of a "Recurring Fibroid Tumour."*

The term Recurring Fibroid has been applied by Paget to a class of tumours which, while they exhibit a close resemblance to the ordinary fibrous tumour, are characterized by their tendency to recur, and by the peculiarities of their microscopical structure. He has collected together and reported in his twenty-sixth lecture seven cases, two of which came beneath his immediate notice, having occurred in the practice of Mr. Stanley, whilst the remaining five were noticed by other observers. "These," he says, "will suffice to prove the existence of a group of tumours having these remarkable characters in common:—1st. A general

resemblance to the fibrous tumours in their obvious characters; 2nd. A microscopic texture composed, essentially, of elongated and caudate or oatshaped cells, somewhat resembling the elongated cells of granulations or of lymph developing into fibres, yet differing from them enough to be easily distinguished; 3rd. An exceeding tendency to local recurrence after removal, and, in the worst extremity, to protrusion and ulceration; 4 h. An absence of those events which, in cases of ordinary malignant growths, would coincide with local recurrence: such as cachexia, independent of profuse suppuration, pain, and other ordinary causes of exhaustion; and the absence of all affection of distant parts, or of the lymphatics. 5th. Occasionally, a cessation of the tendency to recurrence, and a complete recovery."

Cath. C., aged 16, a nervous, hysterical girl, was admitted into the Montreal General Hospital, 26th Feb., 1857, in consequence of having received a severe bruise of the thigh. A few days after her admission she requested me to examine a tumour on the back of her neck, of which she gave the following history:—Eighteen months ago she was much troubled with "granular lids," for the cure of which the medical gentleman who had her under treatment ordered her to be cupped freely on the nape of the neck. The student who performed this operation, not being very expert, allowed the inflamed alcohol to come in contact with the skin and burn it. Shortly after the incisions made by the scarificator had closed, experiencing some pain in the part, she was led to examine it, and discovered that there was a narrow red line in the centre of the surface that had been burned. This line was slightly elevated, and quite sensitive when pressure was made upon it. It gradually increased in dimensions until it attained a size which produced considerable inconvenience, as the upper part of her dress chafed, with every movement, the integument covering it. Desiring the removal of the growth, she entered the Hospital during the month of February, 1856, under the care of Dr. R. P. Howard, by whom it was carefully and completely excised. The wound made by the knife was subsequently attacked by erysipelas, and the cure consequently delayed for some time. The cicatrix left was not much greater than if union had taken place by "first intention. Shortly after her discharge from Hospital, a second tumour appeared in the site of the cicatrix, and becoming gradually larger, she was re-admitted by Dr. Fraser in the month of June, 1856. There being very little prominence of the tumour at this time, its length and width predominating materially over its height, Dr. Fraser adopted the plan of destroying it by the application of nitric acid. On the separation of the slough produced by the caustic action of the acid, a healthy gra-

nulating surface remained, which soon cicatrized, and the part appeared to be again restored to a healthy condition. Scarcely a month elapsed, however, ere a third tumour appeared in precisely the same position occupied by the two former tumours, and gradually increased to its present size. It is now of an oval shape, measuring two inches and a half in length, one inch in breadth, and is elevated about four lines above the surface. It is of a pale red colour, not unlike mucous membrane in appearance, and a few very fine vessels may be traced on its surface, extending a slight distance from the circumference towards the centre. When handled, it feels elastic and moderately dense—not so firm, indeed, as the true fibrous tumour. She complains greatly of pain when pressure is made on it. Having had her placed under the influence of chloroform I excised the tumour by including it in an elliptical incision, cutting wide of the edges and deeply beneath the growth, so as to ensure its entire removal. I then brought the edges together by means of one point of twisted suture in the centre, and one of interrupted suture at either end, covering the whole with water dressing.

On making an incision into the tumour, after its removal, its cut surfaces exhibited to the unaided eye the characteristic appearances of a simple fibrous tumour; but when a portion of it was placed beneath the microscope, instead of exhibiting anything like a fibrous arrangement, it was seen to consist almost entirely of "narrow, elongated, caudate, oat-shaped, nucleated cells," having a few granules mixed with them. The diagnosis which I had made from the appearance and history of the growth was thus confirmed by the microscopical examination, and I had, therefore, no hesitation in confidently asserting to the students of the surgical class that the disease would re-appear. The healing process progressed favourably during the first two days, when on the third, erysipelas having supervened, the sutures had to be removed, leaving a gaping and angry-looking wound. The erysipelas rapidly spread over the neck, head and face, but soon yielding to treatment, the sore assumed a healthy appearance; its surface became covered with granulations, and cicatrization quickly ensued. She left the Hospital, but returned to it again, where I saw her on the 9th of July, and, as I had predicted, a fourth tumour had made its appearance beneath the cicatrix. The growth of this tumour was much more rapid than that of the other three, it having, in the course of three months, attained a size fully as great as that of the third at the time of its extirpation.

ARTICLE XVI.—*Remarks on Gunshot Injuries to the Extremities;* from Observations made during the late War. By Assistant Staff Surgeon D. Woods, Licentiate of the Royal College of Surgeons, Ireland, &c., &c.—(*Continued from page* 150.)

Amputation at the Shoulder Joint.—Of the various methods by which this operation has been recommended to be performed, the following is the mode which I found most easy, and in which the smallest quantity of blood was lost. Begin an incision one inch below the Acromion process; carry the knife downwards, backwards, and then upwards, on a line with the long head of the triceps. The flap, whose outline has thus been marked out, may now be easily and expeditiously dissected back, when the head of the bone is exposed. The next step in the operation is to feel for the long head of the biceps in its groove on the humerus; by cutting down on this tendon, the joint is at once entered and the head of the bone falls from the glenoid cavity; the supra and infra spinatus muscles, with the tendon of the subscapularis, may now be divided, and the knife passed behind the head of the bone. At this stage of the operation, the assistant's fingers should follow the knife, for the purpose of raising the inner flap about to be cut out, and in which are contained the axillary artery and vein, now also about to be divided; by this proceeding very little blood should be lost from these vessels. The surgeon completes his operation by carrying his knife downwards and inwards, forming the inner and posterior flap, which his assistant holds at its upper part. The points worthy of attention in this case are: The guidance afforded by the long head of the biceps as the best means of entering the articulation; and the prevention of a large loss of blood, by the arteries suffering forcible compression before the knife has come in contact with them. The method of dissecting back the outer and posterior flap, is in my opinion preferable to its formation by the plan of transfixion and cutting downwards and outwards. By the former method, in so far as I have seen, this flap is made with a greater degree of neatness, and more exactly suited in size and shape to the requirements of the part, than is the case where the latter mode is practised, whilst the one can be performed as rapidly as the other.

It has been laid down, as an axiom in military surgery, that the upper extremity should not be amputated, for almost any accident which may happen to it from musket shot; a proposition which, however far it holds good as to the absence of any danger to life, from the non-performance of amputation, immediately after the receipt of the injury, is not equally true as regards the ultimate results succeeding to many of these accidents; when, after long suffering, a man is left with a limb not only use-

less, but even a burthen, to be borne throughout life: such a termination, accruing from original or secondary injury to nerves, (the latter the result of surrounding inflammation), with the matting together of muscles, tendons, &c., and the consequent wasting away of parts, as the forearm and hand; a result certain to follow, wherever nervous influence has been destroyed, or inaction induced by adhesion of muscular or tendinous parts. These remarks apply, more particularly, to injuries of the humero-cubital articulation and forearm, of which I shall presently make a few remarks. In one case only have I witnessed a loss of power in the hand, from a wound to the upper arm. It was as follows:—

Case.—A soldier, named George Poulton, was struck by a musket ball on the inner surface of the arm, three and a half inches above the articulation. No injury whatever was done to the bones, or the joint; neither did any bad effects show themselves at the seat of the wound, which healed up in the ordinary way. He complained, however, of a feeling of numbness and loss of power in the fingers, which began to contract towards the palm, becoming shrivelled and attenuated. Five months after the receipt of the accident, his fingers were much contracted and useless. He retained sensation in his thumb and forefinger, but was scarcely aware of any feeling in the other fingers of that hand. In such a case as this, of course little or nothing preventitive of such a result could have been effected by treatment, as the loss was owing to injury to the nerves of the extremity.

In a very large number of those cases in which a musket ball fractures the humerus, neither the main artery nor nerves are injured, (I have seen many cases of such accident, and in none had this happened,) whilst the injury done to the bone is capable, under proper treatment, of reparation, at an average period, I should say, of from five to six months. Some cases will get well sooner; but more will, as a general rule, require a much longer period. I am cognizant of cases in which the injury was inflicted at the Battle of the Alma, Sept. 1854, and yet in which perfect separation had not taken place, at the close of the war, March 1856, dead bone still at this latter period continuing to present itself, and sinuses discharging matter, still remaining open; whilst the arm at the seat of injury, and for a distance above and below the part, was marked by obstinate cicatrices, the seat of presentation of former sequestra; for, in cases such as these, there is not, as in idiopathic necrosis, one sequestrum alone, but several, caused alike by the splintering of bone at the time of accident, as also by the inflammation which subsequently ensues in the membranous covering of the cancellated structure. In cases such as

these, therefore, when the bone is not alone fractured and splintered, but throughout its entire circumference smashed to pieces, with the ends irregular, and the central portion of the shaft more disorganized than the circumference, the mere removal of the detached pieces of bone does not suffice to do for the man all that is in the power of the surgeon. In such cases, and they were more frequent in our last war with Russia than in any previous ones, owing to the introduction into the practice of warfare of the large heavy conical ball, and will be more general the more extended becomes the use of this missile amongst armies: in such cases, I would remark, the excision of the ends of the bone is called for, in order not only to shorten the period of suffering, but also to give to the patient a more useful limb than is likely to result when the period of inflammatory action has been so prolonged, as to cause matting together of the muscles, contraction from numbers of cicatrices, and extensive necrosis—the result, as I have said before, of successive inflammatory processes set up in the membranous covering of the cancellated structure; the periostem taking on the same action, with depositions of new bone in parts where nature never intended it should intrude. The length of incision required for the purpose of exposing and sawing off the ends of the bone, is little more than would be necessary for the removal of the broken pieces; and, as I have observed, the point of entrance of the bullet is, in the majority of cases, approximating to the external margin of the humerus (arising from the semiprone position of the membrane at the time of the accident). When the bone is superficial, the operation is not at all difficult, and where the bone has been so extensively broken as I have described, it is in my opinion the proper and only treatment in this respect that should be pursued,—as by it months of suffering will be saved, and a better member preserved. Extensive splintering to any distance from the seat of injury, when the latter is caused by a musket ball, is not, so far as I have observed, frequent, the contrary being the rule; the quantity of bone discharged or extracted from the wound, in the course of treatment, over and above what has been detached by the bullet in its passage, being dependent on subsequent disease, set up by the irritating cause, either by spicula not removed, or the presence of disorganised cancellated structure at the broken extremities. In the foregoing remarks, I have recommended a course of treatment not generally pursued, and which has for its object the saving of time and suffering; for, whatever be the course pursued, wounds of the upper arm from musket balls, in the greater majority of cases, will recover, the recovery being merely a question of time; the motion being in some impaired, whilst in others a more successful termination is attained.

I now, however, come to treat of a class of injuries where such a favorable result does not, as a general rule, obtain; I allude to injuries of the elbow joint, forearm, and wrist. I have already remarked, that after many of these accidents the sufferers retain a perfectly useless member, arising from loss of nervous power, the direct and immediate effect of the injury; or from the effusion of coagulated lymph amongst the muscles and tendons, rendering these parts adherent, and consequently destroying their effective motive powers. Nor is this to be wondered at, when we come to consider the number of separate and independent muscles to which this part of the body is dependent for its action. Confined within a small space, and closely approximating, they are in health remarkable for the beauty and variety of their actions; whilst when diseased, or injured by accident, no part of the voluntary muscular system is more easily destroyed in its physical capabilities. Again, when we come to consider the position in which is placed the ulnar nerve, between the olecranon process and the external condyle of the humerus,—two hard unresisting substances—an injury to either of which by a musket ball, or splinter of shell, can scarcely ever fail to effect it, we have an additional cause why more unfortunate results as to the ultimate physical capability of the limb, should follow injury to this part of the body more frequently than is the case with any other extremity. It has been remarked, with perfect truth, that mortification from defect of nourishment rarely takes place in the fingers as it does in the toes, after injury to the great vessels of the limb; and yet as a rule, in so far as my experience tends, the ultimate results following similar wounds of the lower extremity, calculating from below the knee joint downwards, where conservative surgery has been tried, have been more favourable as regards the leg and foot, than the forearm and hand. I have witnessed a number of wounds to the ankle joint and foot, and some of these of the most severe kind, from musket balls; and yet in none, however severe or prolonged the suffering, with danger to life, (the latter contingent never arising in any case of injury to the wrist joint which came under my care,) have I seen that wasting away, contraction and ultimate loss of power, which have ensued to injuries of the forearm or hand. We are able to account for the comparatively unfavourable results between the two parts thus succeeding upon injuries, even when the nervous structures have not been implicated, by taking into account the more varied and constant use to which the upper extremity is applied, with the causes previously mentioned arising from structure, &c. A case, well illustrating the foregoing remarks, came under my notice in the Garrison Hospital at Portsmouth, in May, 1856. This man had been wounded in the trenches some twelve months previ-

ously by a musket ball, which, passing through the forearm, entered posteriorly, close to the wrist joint, fractured the radius at this part; the wound had several times almost closed, again to reopen, and discharge necrosed spicula of bone. When I first saw him in April, a small aperture existed at the seat of the original entrance of the bullet; through this opening could be felt a sequestrum rough and moveable, but surrounded by new bone at every part, except where the probe passed down to it. He has lost all power of motion over the wrist joint, hand, and fingers, which were wasted, discoloured, and flabby, the fingers semiflexed on the hand. As no power of motion remained, it was decided to amputate above the wrist joint, which operation was accordingly performed. An examination into the pathological condition of the part after its removal, showed that union had taken place between the broken extremities of the bone by means of a large mass of callus, in the centre of which was a piece of necrosed bone, about three-quarters of an inch in length, and nearly equal in circumference to that of the radius at its middle half. In this callus also was involved the ulnar nerve, with the tendons jutting over the part; bony adhesions had taken place between the carpus and the articulating surface of the radius, involving the ulna, and prevented flexion or extension of the wrist joint. The foregoing case is an excellent example of the results most likely to ensue after injuries of this kind, and the probability, indeed the certainty, is that disease would have gone on for years in the bone, had not its removal been effected by amputation. Had, however, the broken end of the radius been removed immediately after the accident, or even some time after, when wasting of the extremity began, and nature evinced herself unable to effect a cure, the result of the case would, I have no doubt, been different; the man would have had a hand, which, however disabled, would still have been useful to him. It will not do, however, to defer the period of operation, as to excising the bone, for any lengthened period; for the efforts made in the formation of new bone, as shown by this case, will soon surround, and cause a trophy of the nerves, tendons, &c., on which the part is dependent for its sensation and motive power. In remarking on the foregoing case, for the sake of illustration, I have somewhat digressed; as I wished to treat more at length of wounds of the elbow, before going to those of the wrist. I shall now, therefore, return to the former.

Judging from the teachings of experience, the restorative efforts of nature are exerted in a greater degree for the quick repair of injuries to the elbow joint, than for that of any other part of the upper extremity; but the important question in the treatment is not alone as to the rapi-

dity with which union of the bones succeeds, or the quick cicatrization of the softer part—it is far more what will be the ultimate result, as regards the utility of the limb left to the possessor. I have already had occasion to allude to the danger to which the ulnar nerve is exposed, in injury of this part, from its position being superficial, and placed between two hard bony surfaces; as also to the fact that it is likely to be involved (should care be not taken at any early period,) in the bony substances thrown out by the periosteum for the repair of the injury; where such is the result, we have not only anchylosis produced at the seat of injury—we also have a wasting away of the extremity, as the following case illustrates:

Case.—Chas. Cunningham, 42nd Highlanders, was struck by a musket ball, on the 8th of Sept., at the attack of the Redan. The bullet entered close but rather posterior to the superior angle of the external condyle of the humerus, and taking a transverse direction, came out at the olecranon process, fracturing that part. At the period when he first came under my notice, the wound had nearly healed, several splinters of bone having been discharged, but firm anchylosis had resulted in a semiflexed, and prone position of the fore-arm. In addition, he had lost the power of motion in his fingers, and his hand was wasted; in fact I came to the conclusion that he would have been better without than with the limb thus retained. A considerable deposition of bone had taken place in and around the seat of injury, destroying the symmetry of the joint. In my notes, made at the period when the man was under my care, I remarked that the wasting away and loss of power in the hand could not be from the course of the wound and the complete destruction of the nerve by the original injury, however it may have been stunned by the blow; and I am led to the conclusion that the loss of power had resulted more from two other causes, viz., the continued and long inaction of the extremity, restrained for a long time bound in splint bandages; and, secondarily, to the nerve having become involved in the new osseous matter thrown out. The man stated that he possessed some power over his fingers after the accident, and he ascribes their present state to his bearing his arm for such a lengthened period in a sling. The loss of power in some cases of accident of this kind will be due to the attachment of the muscles being broken off, but when such is not the case, I should say we ought at least to be able with care to preserve a limb with no farther loss of its power than that resulting from anchylosis. Although I have not myself had an opportunity of treating any exactly similar case, in its earlier stages, I believe that by the removal of all the injured part, which is likely to cause an excessive growth of new and worse than use-

less bone, and subsequently by the prevention of too active a process of reparation, so to speak, in the formation of an excessive growth of such material, with attention at the same time to the hand, we may retain, to a certain degree, the flexion and extension motions; but even if such should not occur, we may preserve at least a useful hand. To the attaining of such a result, in addition to the early and free removal of all injured bone, the occasional application of leeches, cold lotions, &c., are the means I would employ. I look upon bandaging in such cases—especially the application to the hand and fore-arm—as positively injurious; they cramp the muscles, restrain the circulation, and by their long continued pressure go far to produce the atrophy and wasting described; and as the case during the earlier stages can be treated without their aid, retaining the joint in an easy position by means of pillows, &c., and subsequently by means of slings, I would myself rarely employ them in such cases. During the latter stages, when the man is walking about, a few turns may be put round the joint to retain the dressings and prevent too much motion, but they should never extend to the forearm, for the reasons already stated.

The next case is an example of injury to the bone, at a part where we might have supposed the nerve likely to have suffered injury, and in which such was not the case, a favourable termination resulting in every respect.

Case.—Jas. Furvis was wounded on the 8th of September, by two small bullets, one of which entered at the upper part of the arm, and passing downwards, made its exit near the external condyle, without injuring that part; the second ball entered and fractured the internal condyle of the humerus. The case progressed favourably, and the wounds healed, leaving the limb in the following condition: The flexion and extension motions of the fore-arm on the arm were both to a small degree imperfect. The loss of motive power in this respect was not, however, owing to any decrease or want of nervous influence, but was the result of a deposit of bony matter close to and interfering with the motion of the olecranon process. The rotatory power of the arm was perfect, as the radius was not in the least involved in the injury. The limb was a useful one, and the matting together of the muscles nor atrophy had taken place.

(To be continued.)

ART. XVII.—*A Severe Case of Menorrhagia treated by* A. D. Stevens, M.D., M.A., Dunham, C. E.

There is scarcely any subject connected with the diseases of females that presents more interesting considerations than that which relates to menstruation. And, indeed, according to my own limited experience, nothing has given me greater cause of annoyance than the obstinacy of some of the different forms of menorrhagia that have come under my notice. It is true we have not that prompt and active demand for efficient medical aid that is so often required in severe cases of flooding after child-birth. Yet it not unfrequently does happen that we meet with patients who, after the ordinary means of treatment have been resisted, require speedy and energetic means at our hands to mitigate their impending danger: and, in consideration of the above facts, the writer has been induced to give some of the details of a case which recently came under his care.

On the 4th of June last, I was asked to visit a young lady, aged 19, previously of stout habit, Miss Mary M——, who had been ailing, as her brother said, for four or five weeks, with severe pains in different regions of the body, and had become thereby very pale and weak. His wishes were complied with; and upon reaching the house, I found, to my great surprise, she had been suffering all this time from a very severe and prolonged attack of menorrhagia, and that, from her excessive modesty, she had deferred thus long sending for me. She at this time presented almost every sign of great and protracted loss of blood; and, according to her mother's words, had already lost "a tub full." Upon further examination, I thought best to order a gentle enema to be given; and after an evacuation from the bowels had been secured, a powder of acetate of lead and acetate of morphia (five grs. of the former to one-fourth of a grain of the latter) every four hours. This, with recumbent position, elevated pelvis, cold acidulated drinks, light covering, and cool air, was all that seemed expedient to give. She continued the above treatment without any apparent relief for the period of thirty-six hours, when I was again sent for; and, upon reaching my patient, such untoward features had set in that the use of strong tannin injections, and ergot of rye, in drachm and a half doses of the vinum, were given.

Upon returning the next day no amelioration in the symptoms had taken place; plugging the vagina was effected; a compress placed tightly over the vulva, and secured by a bandage brought over it, carried under the perineum and around the pelvis, and the ergot continued.

The next day I again visited my patient, and found, as before, no improvement, but, on the contrary, a gradual sinking of the system, from

the incessant loss of blood. At this stage of the case it was evident that such means were wholly inadequate to the arresting of the discharge, and as an examination per vaginam seemed called for, the use of the speculum was consequently proposed and agreed to after much persuasion.

By this means the mouth and neck of the womb were clearly made visible, from the former of which was observed to issue the bleeding. The tannin injection was again resorted to, and a long and narrow piece of cotton pressed forcibly into the uterine neck, one end being left in the vagina, and the ergot still ordered to be kept up.

Subsequently she was seen by me after the lapse of twenty-four hours, when no material change was found; the blood was still finding its way externally in large quantities. Not being fully satisfied with the trial of the previous day, I again resolved to plug the cavity of the neck and vagina, and, in addition to the other means, to give muriated tincture of iron in thirty-drop doses every six hours. Upon the following day I returned, and, as formerly, the intractable hœmorrhage persisted, and had rendered futile every attempt on my part and that of the attendants, while her life seemed now in imminent peril, and she seemed indifferent to what was passing in the room.

Again I repeated the treatment of the previous day, hoping still to alleviate or suppress the uncontrollable hemorrhage, but with the same results.

Upon once more reflecting cautiously on what had been done for her, as well as considering the very low state she was now in, another plan occurred, which at least would not aggravate the case, and possibly might be productive of the desired end. This was cauterizing the neck of the womb with nitrate of silver. The speculum was again introduced, without disturbing the position of the patient more than was necessary, the mouth and neck brought into view, and the solid stick of nitrate of silver very freely applied to the whole surface of the cervix, also both internally and externally, to the os.

She was now left to the care of the nurse until the next day, when, upon returning, I was pleased to find that "not a single drop of blood had made its appearance" since the cauterization, and she herself appeared to have more consciousness of what was transpiring about her.

Nothing now was done for her, with the exception of allowing her to take for food chicken broth, and tapioca, until the lapse of three days, when the nitrate of silver was again applied, and the following pill ordered to be taken three times a-day:—

℞ Ext. Gentianæ, gr. i. Ferri Sulph., gr. i. Quinœ Sulph., grs. ss. Ext. Rhei, grs. ss.

Under this treatment, with a suitable diet, she continued to improve, is now as strong as could be expected under the circumstances, and has since menstruated once safely.

It might be well to add, in conclusion, that I have since learned that the whole list of domestic remedies had been unsuccessfully tried before calling upon me, and that the medicine of one of my professional neighbours, of high repute, had been taken with as little benefit.

I cannot, therefore, think that the case is without interest; and if it should throw no new light upon the treatment of menarrhagia, I trust it may re-direct attention to the use of nitrate of silver as a hemostatic in the management of returning hemorrhage, and particularly that form which has been considered.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. IX.—*The effects of Climate on Tuberculous Disease.* By Edwin Lee, M.R.C.S., London. *The influence of Pregnancy on the development of Tubercles.* By Edward Warren, M.D.; Philadelphia, Blanchard & Lea; Montreal, B. Dawson; Quebec, Middleton & Dawson.

These productions, bound together, form a small volume which has lately been issued by the American press. They are Essays to which the Fiske fund prizes were given in the years 1855-'56.

Mr. Lee sums up the chief matters of his discourse in several pertinent conclusions, of which the following are part:—

After stating the much more frequent occurrence of Phthisis in places where a moist state of the air predominates, he observes:—

"On the other hand, tuberculous diseases are of comparatively rare occurrence in cold and dry climates, where the energy of the circulation and of the cutaneous functions is maintained by the substantial food, and by the active mode of life of the inhabitants which suffices to preserve them, in great measure (as respects pulmonary consumption) from the pernicious effects of the inclemency and variations of the weather, to which they are continually exposed. Consumption is likewise rare in warm and dry countries where the inhabitants live a good deal in the open air, and where the insensible perspiration is kept up without muscular effort, by the influence of the climate. On the other hand, it is frequent among the natives of several countries where the climate is hot and moist, (the West Indies, &c.,) on account of the relaxation of the system, and of the repression of the insensible perspiration, produced by the combined agency of heat and moisture."

He adopts a rather prevalent opinion that the blood is in an unnatural state, chiefly indicated by a diminution in the amount of red globules; and no doubt, in connexion with this idea he bases this the tenth conclusion:—

"A prolonged residence in any place where the temperature is very equable and the atmosphere calm, is not advantageous to patients, when it is a question to procure the restoration of the blood to its normal state. On the contrary a moderate agitation of the atmosphere is favorable to them by exciting the insensible perspiration, and by making them, so to speak, breathe by the skin as well as by the lungs."

The vitiation of the blood here signalized is not by any means the only pathological element upon which Phthisis is founded, for as the inquiries of Dr. Edward Smith of London, carried out at the Brompton Hospital, serve to show, the condition of the system preceding and accompanying the Pulmonary disorder is of very universal dissemination, and consists in a derangement of both solids and fluids generally, and is "expressed rather by a general predisposition to the disease than by the state of the part of the system, viz., the blood in which the elements of the disease had never been found." (*Ranking's Half-Yearly Abstract, No.* 25.) Either side will not, however, militate against the welcome fact of the advantage of climate; but the last received will tend to explain it simply on the principle of a general roberant instead of a partial hœmatinic agent, and furthermore it will deprive the blood hypothesis of much of the importance imposed upon it by those who exclusively adhere to it.

It is not, however, to be inferred that a moist atmosphere is invariably pernicious, for, as our author elsewhere says,—

"Most persons with pulmonary consumption, who are natives of northern countries, would be benefitted by a residence during a part or the whole of winter in a warm climate, even though it were hurried, provided the disease were not too much advanced, from the mere passage from a cold to a milder temperature. Many patients in whom there exists a state of general or local excitation, which requires the employment of sedative remedies, would derive permanent advantage from the action of a warm and moist atmosphere, provided the influence of the air were not too prolonged, as that might render the invalid prone to an exaggeration of the disease if during migration he shifted to a locality of opposite characters."

Dr. Warren's portion of the volume is much the shorter of the two. He contends for the antagonism between tubercle and pregnancy, and his argument may be thus stated in his own words and manner:—

1. "There is an inequality in the relations which men and women sustain to phthisis; the former being less liable to it than the latter.

2. "The inequality depends upon certain differences of conformation, &c., which are *plain, palpable and conspicuous.*

3. "An examination of phthisical statistics should show that more women fall victims than men, and that the difference in the relative mortality of the two is as *plain, palpable and conspicuous* as their original dissimilarity of constitution and predisposition.

4. "An examination of statistics prove that *it is not* a settled *fact* that more females are destroyed by this malady ; and that there is a positive approximation towards *equality* in the effects of phthisis upon the two sexes.

5. "This 'approximation towards equality' shows the operation of some great equalizing cause by which a certain amount of protection is secured to the female system, that makes up for its greater original susceptibility, and affects the general result in the manner alluded to above.

6. "Pregnancy complies with *all* the conditions which this cause demands for its operation, and it is fair to attribute this protecting, preventing, and equalizing effect to its influence upon the female system."

ART. X—*The Hand-book of Practical Receipts of every-day use.* A manual for the Chemist, Druggist, Medical Practitioner, Manufacturer and Heads of Families. By THOMAS F. BRANSTON. First American from the second London Edition ; Philadelphia, Lindsay & Blakiston ; Montreal, B. Dawson ; Quebec, Middleton & Dawson. 1857.

This valuable work comprises within the small compass of 307 pages the officinal medicines, their uses and modes of preparation, and formulæ for trade preparations, mineral waters, powders, beverages, dietetic articles, perfumery, cosmetics, etc. It thus warrants the expression of its title, that it is a manual for the classes therein designated. The vast scope of its usefulness must also equally appear from these particulars. We have not looked so narrowly into its contents as to be able to pronounce upon the fidelity of its author in executing his task, but we have no reason for believing other than that he has produced a reliable and authentic formulary which may be consulted as veritable in moments of need. We are much mistaken if it will not be found deserving of merit as a reference and guide to numerous points of uncertainty and difficulty.

CLINICAL LECTURE.

On the nature and treatment of inflammation and abscess, and the modern doctrines on that subject. By F. C. Skey, F.R.S., F.R.C.S., Surgeon to St. Bartholomew's Hospital. &c., &c.

(*Medical Circular.*)

Gentlemen,—It was my intention to day (July 13, 1857) to lecture on "Abscess," acute and chronic, a most practical subject. One cannot occupy the mind with the consideration of the nature of abscess without reverting to its origin or cause, and this leads me to the wide study of "Inflammation." Now you will find the subject of Inflammation so misinterpreted and misunderstood in books, and in the wards, that I cannot give you any reason for the "faith that is in me" as to the nature and treatment of abscess without first saying that I entertain some very peculiar opinions, more especially as to the results of inflammation in surgical cases, and the general treatment to be adopted. Microscopic inquirers on inflammation are too theoretic for my taste. When a young man is asked in his university examination, what is inflammation? he answers something out of books that he scarcely understands, though it may be the most recent and orthodox idea on the subject. Perverted nutrition! Inflammation is perverted nutrition. A student says that's an answer, and he understands it; but to my mind, there is really no clear idea attachable to it. How will the cabalistic words "perverted nutrition" help you in an obscure case, say of abscess in the pelvis, or in the inner ear, or the skull? I advise you to go more practically to work. Did not Galen tell us inflammation is a state of vessels attended with pain, heat, swelling, and redness? Depend upon it that in clinical practice it is better to adhere to Galen, for believe me, though "perverted nutrition" may be more scientific and less old fashioned, it is also less intelligible. I hold that, wherever you have inflammation you have a condition of the vascular system attended with pain, swelling, heat, and redness; and, I hold also, that where you have not pain, swe ling, heat or redness, that there you have something else, other than inflammation. There is a great number of modern books on this subject, but I am inclined to pass them over at present. Half a century ago Dr. Thompson published an admirable book on inflammation, but even this work has carried away the mind of the Profession rather too much from the good common sense of Galen. What is the crisis of inflammation? Why it is that point where inflammation stops. Mr. Joseph Henry Green has gone over this very well; read what he says. Thompson says the tendencies of inflam-

mation are towards effusion, suppuration, ulcer, gangrene, cicatrisation, resolution, adhesion. There are seven of them, according to Dr. Thompson, but crisis and resolution are one, and I hold very firmly that these seven may be reduced, perhaps, to two, gangrene and deliquescence.

Well, what is chronic inflammation? A word in the mouth of every doctor. There is no such condition at all. What is suppuration? What is abscess? Local inflammation, the surface softens, matter forms, and you have in an eminent degree pain, heat, redness, and swelling. Now, chronic inflammation and local inflammation are entirely different things. What is ulceration? Here the theorists meet you again; disintegration of molecules! That's fine, is it not? But what of pain, heat, redness, swelling? Certainly if they are essential to inflammation you can have ulcers without them; so that ulcer is not a result of inflammation, or rather inflammation is not a *sine quâ non* of ulcer; you will have ulcers from starvation. I hold that the two essential results of inflammation are, gangrene or deliquescence. Take this idea with you through the wards, and see if I am not right.

Adhesion of opposite sides of pleura, how is that effected? Is there heat, redness, pain, and swelling? Certainly not. If I do a rhinoplastic operation, is that attended by local inflammation? I think not. I know very well that this is the way all such processes are explained; but it is an explanation that explains nothing. Then effusion,—a condition as in hydrocele, attended by a pouring out of water. Surely there you have no pain, heat, redness, swelling. To my mind it is simple nonsense to call this inflammation, or the effusion of fluid in the pleura or pericardium, in debilitated subjects.

Cicatrisation, the last of the lot, is the same; it is not inflammation, there is no word so prostituted in fact as this convenient term of inflammation. These views of Dr Thompson are unpractical, and it is absurd to apply local depletion to vessels already weakened and showing want of tone. I say to you go back to Galen, and adhere to his definition,—imprint it on your memory. Heat, pain, redness, swelling, where you find these you find inflammation. Chronic abscess! What a large subject that is; and psoas abscess in half-starved scrofulous children! But if you remember what I am saying, it is easily explicable. I often think if the term "inflammation" were restricted to one tenth of the cases that it is, we should go nearer to the truth of nature, and I am sure we should gain more credit with our patients. Inflammation to us surgically, is sometimes an unhealty state originated for a healthy object. If you had a thorn in the skin, inflammation is set up to get rid of the thorn. But can you apply that process to the repair of a broken bone? I say you

cannot; they are quite different processes. Now as to treatment. I believe in seven cases out of ten depletion does harm. There is nothing more common than to apply leeches to arrest or check inflammation or abscess. I will take an impending mammary abscess in a poor woman suckling. There is nothing, in fact, like leeches or bleeding, for *increasing* the inflammation. Your leech is your true destructive to hasten suppuration.

Mammary abscess occurs in weak women during lactation, weak women with what we know as "bad" confinements, that is, a tedious labour with much subsequent hæmorrhage, &c. Does not nature herself open your eyes to the fact that there is impaired vital power? Is it not common sense that bark, wine, tonics, meat, and such like, are the proper plan of cure; not purging, leeches, antimony, &c.? I never saw a case of abscess that was not improved by the former plan, It is to me quite deplorable to witness the mischief committed by the depleting system. The whole testimony of the best men in the Profession is to give up the lancet. The times of the lancet are gone by; you might as well set up cat-o'-nine-tails and chains in lunatic hospitals. I have the highest regard for the opinion of Sir Benjamin Brodie, and I asked him the other day, Does he not use the lancet less than formerly? What about bleeding *ad deliquium animi*—the venerable old formula when I was a student? The reply of Sir Benjamin Brodie was curious—"I never see a lancet now, I have'nt one in my possession." Bleeding is almost unknown amongst our best practitioners. Every abscess you see in hospital is the result of debility, rather than of the phlogistic diathesis. I believe that pus itself is an indication of a condition below par—blood altered into pus. The term congestion is often a better word than inflammation; but we induce the congestion if we weaken the heart as to fever? Do not be misled about that either; many things which we do, *selon les regles*, only keep up fever, inasmuch as they keep up irritation in the system. Bleeding in typhus fever, starvation, blisters to the head,—these are all wrong, and perhaps only as wrong as the miserable attempt to stop mammary or other abscess by local depletion. I say increase the heart's action, but do not weaken it.

I have great confidence in the old Jesuit's bark and wine; in the out-patient's department you will see it "work wonders," especially when the patient is brought subsequently into hospital. Take those thick deposits of lymph round a bubo; those slow tedious things that come day after day to hospital, you will never cure them by weakening the patient; but first change your hand and try bark and ammonia; or in erysipelas, try bark, and ammonia, and wine, and you'll cure your patient. Let us now recapi-

tulate, and you will then discover the bearing of all this on the cases of abscess we have in the hospital. 1. I object to the doctrine of "perverted nutrition," and wish you to adhere to the more practical definitionof Galen, viz.; pain, swelling, heat, and redness. 2. As a rule venesection does harm rather than good in the cases of so-called inflammation, in hospitals. 3. Chronic inflammation is a term that signifies very little, if it be not, in the majority of cases, a term without any significance. 4. Resolution or gangrene are the only results of pain, swelling, heat, redness. Ulceration is the result from congestion. All the others are accidental in their natures, or mere concomitants.

THERAPEUTICAL RECORD.

(From the Virginia Medical Journal.)

Oil of Turpentine as a Cure for Itch, Dr. Anselmier (Jour. de Chim. Med. Dec 1856) says that of the various modes of treating Itch, none has been more successful or cheaper than that by essence of turpentine. The following is the mode of using: The patient on going to bed, sprinkles on the sheets, and his usual daily clothes, about 60 grammes (14 fluid drachms) of oil of turpentine; when he awakes he is cured; his bed and clothes are no longer infected. The odor of the turpentine passes off in a few days.

This treatment has several advantages:

1. It attacks the parasites at the time they are most accessible.

2. Fumigation acting by substitution on secondary eruptions, is much less irritating than lotions and frictions, whether soapy, sulphuretted, or terebinthinated.

3. The treatment acts at the same time on all the contaminated objects.

4. Not only is it more rapidly efficacious and better than any other, it is likewise the cheapest.—*Chemist.—Nash. Jour.*

Ergotine in Epidemic Dysentery.—By M. Massola—In a communication to the Academy of medicine of Paris, M. Massola states, that he found great benefit from the use of ergotine in the fatal epidemic diarrhœa, which prevailed so extensively among the Sardinian troops in the recent campaign in the Crimea. From fifteen to twenty grains were added to ℥ viii of water, and a tablespoonful of this mixture was given every half hour. M. Massola states that astringents, tonics, opiates or stimuli, were of little avail as compared with the ergotine.

Arnica in Pertussis.—M. Gentil reports that during a recent epidemic of pertussis, after the failure of various means, the root of arnica montana rendered signal services. A decoction was made with a half to one drachm of the root, and taken during the day.—*Rév. Med.*

Essential oil of valerian in typhoid fever.—M. Leausure states that this substance exercises an eminently "regularizing" effect. It reinvigorates the powers

raises the animal temperature, and restores the appetite. It relieves vomiting and diarrhœa by inducing sweating, which is abundant, and of a disagreeable smell. It sensibly modifies cerebral symptoms, in one case relieving delirium tremens that was present. The dose is, in bad cases, a drop every hour, and, in milder ones, a drop every 2 or 3 hours.—*Gazette des Hop.*

Quinine and digitalis in migraine.—M. Serres recommends the following formula: ℞ Quinine, gr. 45, powder of digitalis; gr. 15, syrup, q. s.; in 30 pills—one every night at bed time. An equivalent quantity of digitaline may be substituted. The digitalis facilitates and regularizes the menstruation.—*Rev. Méd.*

Simple sweating bath.—Dr. Trilobet states that the most effectual means of obtaining a prompt and abundant transpiration is to place the patient in an empty bath, light a spirit lamp, and cover him with thick coverings. Sweating commences directly.

Tannate of zinc in catarrhal affections of the eyes.—M. Bonnewyn observes, that this substance is highly useful in affections of the eye, accompanied with mucopurulent secretion. He commends the following formula: ℞ Tannate, grains 30, aq. dest. ℥ vi, mucilage, ℥ ½. M. The tannate may be prepared by saturating a solution of pure tannin with a recent and still wet precipitate of oxide of zinc. This is to be filtered and evaporated.—*Rev. Méd.*

PERISCOPE.

Fetid Bronchitis, by Dr. Laycock

As a further illustration of the pathology of fetid bronchitis, and the probable connection of the special symptom with a morbid condition of the cerebellum, Dr. Laycock called the attention of the class to the following case:—

Case of fetid bronchitis, with aortic insufficiency and dilatation, pulmonary condensation and softening; and atrophy and softening of the left lobe of cerebellum.

John Edgar, 66, single, following the occupation of a carter, admitted into the Royal Infirmary, May 28, 1856. The most salient and interesting points in this case are as follows: The patient enjoyed good health up to the time of present attack, which commenced six weeks ago, with rigors and slight dyspnœa, followed by thirst, feverishness, and cough. Subsequently he lost flesh; the cough became more violent, and was attended by copious expectoration of fetid matter.

On admission, a bulging was found over the cardiac region. Percussion sounds rather flatter over left apex than right, anteriorly; otherwise normal; at the same point respiration is exaggerated; expiration pro-

longed. Posteriorly mucous râles are heard at left base and over middle third, on forced inspiration. Expectoration abundant, partly purulent, with very offensive odour. Over the base of the cardiac organ a murmur is audible from the diastole; it is heard also at the zyphoid cartilage and second right costal cartilage, but faintly at the apex. The arteries at the wrist are very tortuous; the pulsation of the arteries in both arms and forearms, as well as of both carotids, can be distinctly perceived. Pulse 88.

June 4. Patient has not improved much. Complains of thirst, and a little pain in left infra-mammary region. Expectoration more abundant and purulent. Skin hot and dry. 11*th*. "A little improvement;" appetite good; skin cool, that, covering the face of a yellow tint; abundant moist râles over whole of left side, posteriorly; vocal resonance increased; percussion equal on both sides. 24*th*. The odour of breath and sputa less offensive; the sputa less abundant; still mucopurulent; appetite much improved. 29*th*. Coughed up a teaspoonful of florid blood; small quantities continued to be expectorated during the day; sputa frothy. 30*th*. The fetor of sputa is gone to-day, and no odour is perceptible in the breath. Dullness on percussion over left apex, anteriorly, extends down to second rib; cardiac dullness cannot be ascertained, that portion of the chest being as resonant as elsewhere; a murmur with the first sound is audible at the apex, also at base over sternum and under both clavicles. On percussion over left lung, posteriorly, the upper two-thirds are found to be duller than on the right side; lower third is resonant; the colour of the face is less sallow, and patient expresses himself as somewhat stronger.

15*th*. The dullness on the left side extends below the nipple, anteriorly and laterally. Respiration over the dull region is tubular; towards the lower part it is faint, and inspiration is attended by a subcrepitant râle. At the base friction-sounds are audible. Vocal resonance muffled. The sputa pretty abundant; the upper part is frothy and white; in one or two places fawn-coloured; somewhat fetid; the lower part is mucopurulent and tenacious. Second cardiac sound is rough and prolonged; over the sternum both sounds have a metallic character. Pulse 92, full and regular. Patient does not think himself in any way worse, except as regards the cough; skin has a more decidedly icteric tint since last report; conjunctivæ slightly yellow.

21*st*. No change in physical signs, except that a cracked-pot sound is elicited, on percussion, over second and third ribs on the left side. Sputa retain their fetor, which is of a feculent character. Patient is gradually getting weaker, though he says there is no change. The yellow tinge of

the skin has been diminishing for a few days past, and the lips have acquired an anæmic paleness. *Vespere.*—Complains to-night of pain in the left chest. Empl. cantharid. to be applied to the seat of pain.

Passing over the daily reports we come to the *9th August*, when the pulse somewhat weaker, 104 per minute. At 9 A. M. in the forenoon was apparently sensible, but could not articulate. His tongue lay to the right side in his mouth, but could be moved about easily when he tried. Pulse getting weaker and rather quicker. About 5 P. M. had a convulsive fit, in which his right side was alone affected, the arm and leg violently, and the mouth being drawn to the right side, without foaming. He had six similar ones before half-past eight P. M., in all of which the right side was most affected, but in the last the left was considerably affected also. About 9 P. M. he had one in which the left arm and leg were violently convulsed, and the right hand, but not above the elbow. The mouth was at first drawn to the left, but, during the fit, changed to the right, and continued so until the fit ended. The pulse was almost gone, and he seemed nearly asphyxiated, but whenever the convulsions ceased the pulse began to gain in power, and very soon was nearly at its former strength, and 104 per minute. He had four other fits before midnight, at which time (being unable to swallow) he had brandy and an enema of beef-tea administered. From that time till 9 A. M. next morning, August 10, he had sixteen other fits. This morning he lies on his back, breathing with some difficulty. Pulse 120, weaker. At 10 A. M he had a final fit, a very violent one, in which the whole body was convulsed. After this he lay on his back, breathing with difficulty and stertorously, until about 5.30 P. M., when he died quite quietly.

Sectio Cadaveris on the 12th of August, forty-five hours after death.—The body was not emaciated to any great extent. The skin of the face of a dusky yellowish colour, which did not, however, extend to the integument of any other part of the body. On removing the cranium the *brain* was seen to present a very uniform smooth appearance, owing to an effusion, partly serous, partly gelatinous, on the surface of the hemispheres. The brain itself was somewhat œdematous, and very soft; the lateral ventricles were rather enlarged, and contained about an ounce of fluid. The arteries at the base of the brain were very atheromatous, especially the right middle cerebral and the left inferior cerebellar, which last was completely occluded about an inch from its origin. The left lobe of the cerebellum was both softened and atrophied, and, under the microscope, was seen to be crowded with exudation-corpuscles. The *Pericardium* contained a good deal of serous fluid. The *Heart* itself

was quite healthy, with the exception of a slight incompetency of the aortic valves, caused by a swelling, about the size of a pea, between two of them. The *aorta* was dilated and rough immediately above the valves, and was, to a slight degree, atheromatous. The *Left Lung* was adherent to the ribs, especially posteriorly, where the adhesions were quite cartilaginous, and nearly an inch thick. The upper lobe was completely consolidated, with an exudation of a simply fibrous character. No trace existed of either cancerous or tubercular deposit. In the centre of the lung there was a fetid, disintegrating cavity, about the size of a walnut. The *Right Lung* was very œdematous, especially in the upper lobe, with some pneumonic consolidation, and a few emphysematous patches along the anterior border. The *Liver* was normal. The *Gall-Bladder* elongated with an hour-glass contraction in the middle. *Kidneys* contained a few cysts. *Supra-Renal Capsules* rather larger than natural, but normal in structure. *Spleen* normal. *Testes* the same. All the arteries in the body, as far as they were examined, presented here and there patches of atheromatous deposits.

Dr. Laycock pointed out the points of similarity between this case and that of Scott. The leading symptoms were the same, but in Edgar they occurred in a man much more advanced in years, and with much more extensive structural disease. In Edgar there was the same recurrent hæmoptysis, offensive breath, and fecal or butyric sputa. There was also the same cachectic character, excessive thirst, and censorial hebetude. The latter symptom was, indeed, so decidedly marked, that Dr. Laycock diagnosed obscure disease at the base of the brain from the first admission of the patient. His general morbid condition was, in fact, such that considerable mental depression and irritability are almost always experienced, unless special centric causes are in operation to diminish the sensorial sensibility of the cerebral centres subservient to the feeling of corporeal well-being or ill-being (according as the bodily states vary), and which Dr. Laycock places in the posterior portion and the base or the encephalon. He therefore diagnosed probable disease of the cerebellum or medulla oblongata in the case of Edgar, before any special symptoms involving the motor system showed themselves.

Functional disturbance of the nerve-centres in relation with the lungs may, however, be associated with butyric or fetid expectoration in bronchitis. In proof of this Dr. Laycock called the attention of the class to a case observed by him twenty years ago, and reported in the *London Lancet*.

Amylene, a condensed history of its discovery as an anæsthetic agent.

Translated and abridged from the Revue de Thérapeutique.

Anæsthesia is a conquest which will endure notwithstanding the accidents which now and then occur to surgeons. But yesterday this method counted two agents, sulphuric ether, now seldom used, and chloroform, almost universally adopted. A third is now being tried.

On account of the deaths which have occurred during the use of inhalation in the hospitals of London, and which seem to have been more numerous there than elsewhere, the English physicians have eagerly sought for a substance less dangerous than chloroform, and one of them, Dr. Snow, has arrived at a result in the discovery of the amæsthetic properties of amylene which merits being recorded.

Dr. Snow after many experiments upon animals, after having respired the vapors of amylene himself, decided to employ it upon man. The 10th November, 1856, he employed it for the extraction of teeth in two young persons fourteen years of age. In these cases he was not perfectly successful, but from what he had observed he felt authorized in continuing his experiments, and so on the 4th of December he used it upon four new patients with complete success. The 13th of December it was again employed in some more severe cases; and in one, operated upon by Mr. Fergusson for fungus of the testicle, and in another, operated upon by Mr. Bowman for the removal of tumors in the region of the groin, and in two cases of section of tendons. The 27th of December, Mr. Snow used it in the case of a young girl three years and a half old. She breathed the vapors for two minutes only. She did not give the least manifestation of pain, and awoke at the very moment that the operator finished the section of the tendons of the muscles of the foot.

January 3rd, Mr. Fergusson operated upon three patients subjected to the vapors of amylene. In one a rhinoplastic operation was to be completed. The inspiration continued six minutes. It was observed that the amylene produced less rigidity and less convulsions than chloroform administered a few days before.

January 7th, Mr. Henry Lee employed amylene upon a young girl whose thigh he was to amputate. The anæsthesia was maintained during the whole of the operation,—three ounces of amylene were employed. The young patient felt no pain and was very well afterwards. The same day Mr. Fergusson operated upon three patients under the anæsthetic effect of amylene. In all the anæsthesia was obtained in two or three minutes. In two the intelligence was not completely abolished.

Mr. Tyler Smith, surgeon to St. Mary's Hospital, has employed amylene with success in accouchments. Upon the approach of each pain, he

caused 30, 40, 50 drops of amylene poured upon a compress folded several times, to be inhaled. These inhalations constantly and rapidly determined a state of insensibility to the pain, the uterine contractions lost nothing in force or frequency. The return of sensibility was almost instantaneous, from the moment that the pain ceased, and the compress was removed. At the time of the birth of the infant the insensibility was as complete as if chloroform had been used. The placenta was detached and expelled with rapidity, and the uterus contracted well afterwards; the infant was healthy and vigorous.

Mr. Tyler Smith, as well as the other surgeons already mentioned, accord to amylene, compared with chloroform, the advantage of a prompt action *probably* without danger, and what is not less important, the rapid disappearance of the insensibility as soon as the inhalations are suspended. The *only* disadvantages are, the disagreeable odour of this substance, and the necessity of employing a great quantity in order to produce sufficient anæsthetic effects.

Up to the close of January, sixty-nine operations had been performed in England under the action of amylene.

In Paris amylene was first employed in the early part of February, at Hospital St. Antoine, in the wards under the charge of M. Aran, upon patients who had come to have some teeth extracted. Three young women were subjected to the vapors of amylene. The duration of the inhalation was twenty minutes for each of them without producing complete insensibility. The instrument M. Debout invented for chloroform was used, which did not permit the vapor of amylene to pass off in sufficient quantity in a given time. This and the limited quantity of amylene used was supposed to be the cause of the failure.

At a second sitting, the apparatus of M. Charriere for chloroform was used, and a larger quantity of amylene was secured. According to Mr. Snow, the patient should respire twenty grains of amylene a minute, which produces insensibility in three minutes, and sometimes less, which was the result in this case. From ʒ i to ʒ iss of amylene was poured into Charriere's apparatus, and in less than three minutes the patient, a young female with a large decayed molar tooth, was fully asleep. Not being ready for the extraction of the tooth, the patient was allowed to awake, which she did in less than a minute,—her face was gay and laughing, she thought she had just returned from a walk. Everything prepared, about a drachm of the amylene was again poured into the apparatus, and the anæsthesia was again as prompt as before, the third minute had hardly elapsed when the mouth of the patient was opened without resistance and the tooth extracted without the patient manifesting the least sign of pain.

At the same time M. Geraldes, Surgeon to the Foundling Hospital, made some experiments. He had operated at the time of his report (March 4th) upon twenty-five patients, children from three months to ten years old. In all, with a single exception, the anæsthesia was produced in a very short space of time, the minimum of which was one minute, and the maximum three. We cite two observations:

A little patient about six years old was submitted to the action of amylene, in order to examine more easily its eyes. The child breathed the vapors with evident repugnance, it showed no signs of suffocation, it had not that abundant salivation which is sometimes produced by chloroform, but a sudden and very marked weeping was produced, as when vapors of ammonia are respired. This infant reacted very slightly however, against the vapors of amylene: in a few moments, hardly a minute, it remained immovable, insensibility was obtained. The inspirations were suspended. From ʒ i to ʒ iss of amylene was employed. The infant awoke with the same rapidity, it did not complain, and willingly accepted food.

The second observation is the exception mentioned above. The patient was a girl four years old. The apparatus for inhalation fitted badly to the face, so that compresses were used. The child at first pushed away the hand of the operator, saying that it smelt badly. Soon, however, she became immoveable, the weeping was as marked as in the case just cited. At the end of about two minutes she showed a rigidity and contraction of the limbs which is contrary to the assertion of Dr. Snow.

Soon, however, relaxation commenced, and in three minutes anæsthesia was obtained. Still, it was easy to see that the sleep did not resemble that produced by chloroform. It was evidently less profound; the child opened its eyes, made a few movements, and spoke as though dreaming, yet without showing any pain while the operation was going on The pulse and respiration was as in the normal state. Amylene being volatile the whole of it was soon consumed, that is to say ʒ v in about eight minutes, before the operation was terminated. Recourse was had to chloroform, and it was soon easy to judge how much more rapid and active in action this substance is. In a few seconds the child was completely comatose, and appeared much more profoundly asleep than before. This sleep was prolonged several minutes after the operation was terminated, while the child woke up the minute she ceased to breathe the vapors of amylene. The operation continued twelve minutes. With this exception M. Giraldes observes that all the children respired the amylene without effort, without much resistance; in all the respiration was calm as normally; the anæsthesia was obtained without con-

vulsion, without muscular contractions, without rigidity, without being accompanied or followed by nausea or vomiting, although the amylene was given soon after eating. In all the awakening was rapid, complete; they preserved their gaiety, were not incommoded, innervated, irritated, or disagreeable during the rest of the day.

As soon as the anæsthesia is complete M. Giraldes suspends the inhalations. The explorations and the operations requiring but little time, he has not thought proper to prolong the inhalations too long. He gives no opinion upon the probable duration of anæsthesia, yet he believes that amylenic anæsthesia can be long enough for performing the great operations of surgery.

M. Giraldes adds, in terminating, that the vapors of amylene, even when they have a marked odour, are respired without effort, without producing any efforts of cough, any convulsive movements of the larynx, nor those contractions of the jaws, those cephalic congestions which are sometimes observed after the inhalation of chloroform.

Children receive amylene without any repugnance. The odour of this substance neither irritates nor fatigues the air-passages. No apparatus is necessary for putting to sleep the little patients; a sponge in a cone of oiled-cloth opened at the bottom is sufficient.

The anæsthetic action is rapid; the resistance rarely surpasses one or two minutes.

The insensibility is complete without carrying it so far as to produce muscular resolution. It is much easier not to exceed the effects you wish with amylene than with chloroform, to limit yourself to a transient and superficial anæsthesia proportioned to the end to be attained.

With chloroform a greater action is produced than is desired, a profound anæsthesia is determined, a complete resolution of the limbs, whilst with amylene you are almost certain of not obtaining them unless you desire to do so by persistent inhalation.

If you desire a profound anæsthesia accompanied with muscular resolution, this result can be attained by means of amylene, by prolonging sufficiently its action. This is an important difference between this substance and chloroform. From the moment that the patient ceases to respire amylene, the effects of this agent diminish with rapidity. The absolute insolubility, and the excessive volatility of this body result in a rapid elimination and a prompt diminution of the symptoms.

With chloroform, on the contrary, of which the volatility is much less, the effects are more prolonged; sometimes they are increased after the inhalations have ceased.

The recovery is complete and rapid. From an anæsthesia of short

duration, not surpassing eight or ten minutes, two or three minutes is all that is necessary for a child to regain all its faculties. A little longer time is required when the sleep has continued longer. The elimination is rapid and the traces of amylene are promptly effaced.

Finally, M. Tourdes designates as a great advantage of amylene over chloroform the absence, or at least the great infrequency, of nausea and vomitings.

The next question taken up by the commission is, whether it offers less danger than ether or chloroform. Various comparative experiments were undertaken by M. Debout to resolve this question, and which were repeated by M. Robert. The first writer says, if it is necessary to double the quantity of chloroform to convert the anæsthetic dose into a poisonous one, it is necessary to quadruple that of ether and quintuple that of amylene. M. Robert in his experiments on animals found that they became as it were accustomed to the use of amylene, and recovered even a part of the sensibility. The reporter agrees with M. Debout in considering it poisonous but much less active than chloroform, but he differs from him in drawing the conclusion that consequently it is much less dangerous in practice. An important fact, he says, in the history of anæsthesia is, that it is not from the successive and progressive evolution of the phenomena of intoxication that death occurs in man, but in a sudden and unexpected manner, as though in consequence of a predisposition in the organism, the nature of which is unknown. I have shown this to be the case with chloroform, in a work published several years since, and the case of Mr. Snow proves it to be the same with amylene. The danger lies in anæsthesia, which, according to the expression of M. Tourdes, is *a diminution of life*, and a *step taken towards death*. Notwithstanding the fact that it is not harmless, it should be retained in practice because its action is prompt, of short duration, and its effects rapidly pass away without leaving behind that general *malaise* which occasionally persists for a long time after the use of chloroform. It is preferable to the other anæsthetic substances for very short operations, when one intends only to annihilate the pains, or simply to blunt it. It is peculiarly applicable for children and patients affected with disease of the air-passages. It should be rejected for long and painful operations, and especially for those in which it is necessary to overcome the contraction of muscles as in luxations and hernias.

On the Pathology of Mellituria. By Dr. Garrod, Physician to University College Hospital.

"As to diabetes being dependent, not upon any increased formation of saccharine matter, but on an imperfect destructive power existing in

the blood, although most of the phenomena are explainable on this hypothesis, still it is by no means satisfactory, as at present there is no proof of this absence of power to effect the ulterior changes. And certain facts, besides those which I have already brought forward, appear to militate against the existence of this deficiency; for there is no marked difference in temperature between diabetic and other subjects; and, in certain experiments made some years since by Professor Graham, no peculiarity was discovered in the amount of carbonic acid which they expire. Upon the whole, I should be disposed, at present, to regard diabetes as due, in the first place, to an increased formation of sugar by the liver, produced by some alteration of function in the organ; and at the same time that its glycogenic power becomes abnormally increased, I should consider that it loses the property, which exists in health, of arresting and changing into new principles (as fatty substance, &c.,) those saccharine matters which are brought to it by means of the portal blood. If we view diabetes in this light, we shall, I believe, be able to explain all the phenomena which the disease presents; at the same time I am aware of no facts which can be brought forward in opposition to it. It explains, for example, why sugar can generally be detected in the urine of diabetic patients, when subjected to the most rigorous animal diet, and, at the same time, why amylaceous matters usually so greatly augment this saccharine impregnation."—*British Med. Jour. & Ranking's Abstract.*

On a new Mode of Treatment in Saccharine Diabetes. By M. Piorry.

M. Piorry is of opinion that sugar is indispensable to the maintenance of life (he founds this opinion upon the researches of MM. Dumas and Cl. Bernard,) and on this account he thinks that diabetic patients ought to be supplied with sugar, and substances which are transformable into sugar, in order that they may repair that unnatural waste which is consequent upon their malady. With this view, he has brought the following case before the French Academy of Medicine:

Case.—The patient is only described as being under M. Piorry's care in La Charité (No. 19 Salle St. Anne,) and as suffering from diabetes, with very copious secretion of sugar. All the viscera were sound, with the exception of some slight hyperthrophy in the spleen. From the 2d to the 12th of January, ten litres of urine were passed daily. During this time, certain feverish symptoms, which came on in the evening, subsided under the influence of quinine. On the 12th, the patient was directed to abstain as much as possible from all fluids, and to have a daily double quantity of meat, *with* 125 *grammes of sugar-candy.* This

treatment was persevered in on the following days, and the result was that the quantity of urine fell to two and a-half litres in the day—the specific gravity remaining the same, namely 1.060. On the 2d of January, 500 grammes of sugar had been lost in the twenty-four hours; from the 12th to the 24th, notwithstanding the addition of the sugar-candy, the daily loss of sugar was not more than 135 grammes.

This case was referred to a commission, consisting of MM. Andral, Rayer, and Cl. Bernard; and in the meantime it is only baldly stated, as we have given it.—*Gaz. Hébdom. de Méd. et Chir.* and *Ibid.*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI,

Tumblety Accused.—A case of a very grave kind has lately been brought under the public notice. An individual—too notorious to be unknown to our readers—calling himself Frank Tumblety, and, desirous of a profitable living, professing to be An Indian Herb Doctor, having lately come among us in this city, is early afterwards brought before a Court of Justice, charged with felony by having attempted to produce an abortion, and amenable to the heavy punishment most properly inflicted by law against the perpetrators of this outrageous practice, as we explained in our last number. The prosecution is brought forward under the Provincial Act 4 and 5 Vic., cap. 27.

Suspicions appear to have been entertained against him from certain statements, in one of his hand-bill advertisments, stigmatized as grossly obscene, which led the reader to infer, among other things, that he could, if required, procure the means of abortion. This filthy publication was widely distributed among the community.

We regret, however, to narrate that the accused was detected by an artifice of an exceedingly irregular character, and one altogether to be discountenanced as the design of deceit and the instigator of falsehood. A policeman is instructed to ask Tumblety to give him medicines to produce a miscarriage for a girl who was *enciente*, when there was actually no one for whom he desired them. He finds an accomplice or accessory in a woman reputed to be a common prostitute whom he takes with him as a decoy. After an introductory visit both wait upon Tumblety, the hired man declares "this was the girl of whom he spoke," she, lost to propriety, endures an examination of an irrelevant sort into

her condition, and, taught what to say, leads the inquirer to believe she is in the family way. Some desultory conversation next follows between the parties, and ends in Tumblety giving a box of pills and a bottle which were said would produce miscarriage—in her who, be it remembered, was a spinster residing in a house of ill fame. Her own testimony is strikingly graphic :—

"He (T.) asked if I was the young woman. I said, I suppose you know all about it. He said yes. He then examined my tongue and pulse and asked me if I felt a weakness and pain in my back. I told him I did, and that I had an inclination to vomit in the morning and to eat something sour. I also added that my courses had been retarded for three weeks. He then turned to Simard and said, "She is caught, but I can cure her." Turning to me he said, if you do as I tell you you will be cured. I promised to follow his directions. He told me he would give me a bottle which would procure miscarriage, as I was in the family way. He then handed me a bottle, some of which I tasted and swallowed. He also gave me a box of pills with printed directions in a yellow envelope, all of which are produced. On the bottle of medicine is a label with the following inscription :—'Dose, a teaspoonful 3 times a day before eating; shake well before using.'"

At first sight this may appear but a joke, and might, if of a less indecent kind, be commendable for its contrivance ; unhappily, however, it is one involving too much moral perversion in its getting up to be spoken of in any other terms than those of condemnation. Of all practical jokes this would have been far more honored in the breach than the observance. A popular rumor has spread abroad the foul slander that it had its origin in a conspiracy among the licensed Physicians of the town, but of the existence of such a party we are altogether ignorant. The profession has not yet lost aught of their dignity or honor, and we are much mistaken if, as a body, they would not repudiate all participation in any such improper procedure.

Our readers, who know better, will be vastly amused at the inquiries instituted by the accused to decide the question or not of pregnancy ; and, measuring his attainments by this sample, will estimate them at their proper value. After Tumblety however felt assured, it may be, from the replies of the patient, or his own observations, or from both sources, the great reason for the consultation comes uppermost—Will he afford her the means of producing abortion ? A mental struggle now is felt—the painful throe vibrates, which even the hardest feel when virtue leaves the breast—and an assize of conscience is formally held. Besides the information conveyed in the previous evidence ; we learn from the man in his witness for the prosecution that time was diverted by taking him to task upon his tenets touching his religious persuasions—it appearing

to be less a crime for a Protestant to produce abortion than for a Roman Catholic—that the latter is deprived of means for violating the laws of his country to which the former is allowed free access—and that inasmuch as the Protestant thus enjoyed the greatest liberties and was not equally chargeable with his offences, a new kind of inducement was held out to all people viciously disposed to join the Protestant ranks!

Not content with this disparagement of men's own views of what is right or wrong in the matter of religious opinion, the name of the Most High is even introduced, and His existence is openly referred to for the ostensible purpose of leading the witness to reconsider his position and request. The appeal very inconsistently introduces the subsequent proceedings, and, admitting these to be correctly reported, we must pronounce it to be a fearful aggravation of their alleged criminality, for the knowledge vaunted should have withheld the commission of the premeditated offence. We do not here say that Tumblety did intend to produce abortion, for that will be settled before a public tribunal whose verdict is not to be anticipated; but we do contend, that, inasmuch as he gave medicines upon demand, they were exhibited either intentionally for the object expressed or for some contrary purpose; if for the first, the recipient had his wishes complied with,—if for the alternative, he was deceived. And, accordingly, the accused stands either in the light of an abortionist or of an impostor. He either endeavored to serve the avowed ends of the applicant or he sent him away with the impression he had done so, when in really he had not. Tumblety professes to comply with the request to produce abortion, he afterwards gives medicines with directions, and finishes by saying, "Come back in a fortnight and you will find all has disappeared." Obviously implying either that at the end of this time he would be found *true* to the trust reposed in him, *i. e.* that he was capable of doing what he was expected—or *false*; placing himself on the horns of a most unenviable dilemma. This will be more clear from the testimony of the witness last referred to:—

"Witness replied to a question put by the prisoner, that he was a Protestant. The Doctor said to him: "Were you a Catholic, I would not give what I will give you since you are a Protestant." He also said to the witness: "Do you not know there is a God above?" To this witness replied, that has nothing to do with it; he was acting on his own account. Tumblety then told him to come back in an hour or thereabouts, and he would give him the medicine to kill the child. This medicine would cost £5. Deponent did not return that day, but went the following morning, and said to the Doctor that the girl was ashamed to go to his office, but that she preferred to see him before taking any medicine. Tumblety then told him to bring the girl, and he would arrange everything."

He also went on to say :—

"He then delivered her the bottle and a box of pills, with printed directions, telling her to do all deponent should tell her. Turning to deponent, he said that is £5. I rely upon you for that, and bring me customers. Come back in a fortnight, and you will find all has disappeared."

Of the character of the medicine administered, we have the evidence of an expert druggist and of a well-known physician of this city, both duly qualified to speak on such a subject to the extent justified by the present state of knowledge :—

John Birks sworn :—"I am a chemist and a druggist in this city. On the twenty-third day of September instant, I received a bottle of medicine from Benjamin Delisle, High Constable of Montreal, for the purpose of analysing it, and to find out what it was composed of. After a careful examination of the contents of that bottle, I found that it contained some black hellebore or hellebonen, and a small quantity of syrup. This black hellebonen is a medicine which druggists never sell without the prescription of a medical man, for it is well known as a very strong medicine used to cause miscarriage. I have also examined very carefully three pills which I also got from the High Constable, and I found that they were composed of Cayenne pepper, aloes, oil of savine and cantharides. I am aware that the oil of savine, aloes and the cantharides have the effect of causing a miscarriage."

Dr. Sutherland's evidence came next, in it occurs the following :—

Question.—From that evidence do you suppose these medicines, if taken by a woman in a state of pregnancy, would produce abortion ?

Answer.—Yes ; if in sufficient dose, or long enough continued.

Ques.—What ingredients do you suppose entered into the composition of the pills ?

Ans.—Aloes, chiefly, at least two other things of importance of which not certain, possibly cayenne pepper and some essential oil.

Ques.—At what stage of pregnancy would these pills likely produce abortion ?

Ans.—At any stage.

Ques.—How many pills did you examine ?

Ans.—One ; quite sufficient.

Ques.—Do you suppose that one pill would produce abortion ?

Ans.—Certainly not.

Ques.—As you are not certain of the ingredients contained in the pill which you examined, how can you say that a certain quantity of such pills would, if taken in sufficient doses, produce abortion ?

Ans.—I said I was certain of the aloes, which of themselves were quite sufficient.

Ques.—How long should aloes be taken, and in what doses, to produce abortion ?

Ans.—The dose and period of taking the medicine are uncertain.

Ques.—Would two such pills taken three times a week be sufficient to cause abortion taken for two weeks ?

Ans.—I think not.

Ques.—Would they in three months produce abortion in the early stage of pregnancy?

Ans.—Such a mode of medication would, to say the least, be very hazardous.

On a subsequent day a druggist's assistant was brought up to give oath that the samples of the pills served by Tumblety *he believed* were made from a prescription he had before compounded, which was for pills only, and contained but two of the ingredients, aloes and capsicum, mentioned by last witness, in addition to others not mentioned, but which are known to be at least equally virulent as the other "noxious things," viz: gambogn, colocynth, mandrake. The exact nature of the means used would appear to be of secondary moment to the *intent* with which they were prescribed,—if it be established that there was an intent to create a miscarriage, then, although the means were incompetent to effect this end, the accused stands legally as condemned as if they had been more successful. Taylor in commenting on the English statute against criminal abortion, says:—"*Whether or not the substance would have the effect intended*, i. e, *of inducing abortion is perfectly immaterial.*" If this be admitted, a medical enquiry into the powers, doses, &c., of the remedies, declared to be given, becomes a work of supererogation.

The case was tried before the Inspector and Superintendent of Police and on the 26th ultimo, he ordered the defendant to be committed to jail to await his trial. He declined receiving bail, because Tumblety was a stranger in the Province, therefore his appearance would be considered perilled if this privilege were granted. After the prisoner's commitment his Counsel brought him before Mr. Justice Aylwin, upon writ of *habeas corpus*, he praying that he might receive the liberty already denied him. The learned Judge, however, confirmed the Police Magistrates' decision, and in his comments upon the accusation said, as reported by one of our daily contemporaries.

"It was of the most serious character, and which the law must use every means to check and put down. Unfortunately it had been brought before the public, through the press, the evidence adduced before the Police Magistrate had gone out to the world, and truly or falsely this man Tumblety had been thus advertised as a person professing and practising a most horrible crime. To protect society, therefore, and to take care that such publicity should not be taken advantage of, he considered it his duty to keep the prisoner where he was until the day of his trial. If, indeed, his drugs and instruments could be seized, and the possibility of his repeating the offence wherewith he stood charged, could be thus made certain, or if a policeman could be stationed at his door to interrogate females seeking his aid, and see for what disease he treated them, the man might fitly be allowed to go at large. But as there was no law which would justify espionage, nor allow of such interference, the only way to

secure the safety of the public was, to detain the prisoner in jail during the short time which would elapse between now and his trial."

What may be the final issue, will soon appear, as the criminal term shortly begins; the evidence adduced, if failing to substantiate the allegation for which the unhappy man is imprisoned, contains sufficient material to warrant the indictment of an action for practising physic without a license, and as the College of Physicians of Lower Canada have the power and the means to institute legal proceedings against an offender in such a case, it is possible that Tumblety may find his residence here, if indeed, he be granted the opportunity, may call forth in quick succession a second incarceration. To say the least, taking up his abode in Lower Canada, after his bitter experience of Toronto, so well known to the profession, was exceedingly reckless, for in this part of the Province the regular practitioner enjoys a full protection to which he is stranger more westward, while the charlatan finds no encouragement given to his predatory propensities.

P. S.—Since the above was written T. has been admitted to bail upon the authority of Mr. Justice Guy.

To Students in Medicine.—Medical Students, in this Province and elsewhere, we beg to remind of the approaching Session of the Faculty of Medicine in the University of McGill College, which will commence on Monday, the 2nd of November next, and extending over the customary term of half a year, will be concluded by the succeeding month of May. We have lately received the Annual Announcement of the Faculty, and from it judge that the members possess facilities for communicating a thoroughly sound medical education, and, as far as we know, upon a scale and extent far surpassing those of any other School in British North America. We are pleased to see that no *low* motives are held out for seducing the attendance of those persons who, while so reduced in judgment as to barter away knowledge for time, are so indifferent to personal ability, or the lives of future patients as not to spend a sufficient period, for getting even a respectable education, but, guided by the folly to rush into immediate practice, irrespective of absolute competency, are ready to patronize any place of tuition which favors their deplorable pretensions, and is unfortunately provided, by a mistaken liberalism, with the authority to give effect to their equally ruinous desires. The great success of the Medical Faculty of McGill College we refer, in part, to the prosecution of an opposite course, as well as other influences not necessary to mention.

It affords us pleasure to be able to quote from the above named pamphlet the following particulars concerning the past Session;—

exhibiting among other things, we believe, an amount of public confidence and general appreciation, such as no other Canadian School could for the same time presume to claim; and demonstrating, we may say, that honest, self-denying endeavors to maintain high excellence in medical attainments, to provide abundant learning of a first order, to supply the community with practitioners who are conscientiously qualified to undertake the rule of the sick man's person, and to discountenance all attempts at carrying out a selfish course of aggrandizement at the fearful expense of suffering humanity,—we repeat that honest, self-denying endeavors, like these, will not pass by unheeded and without encouragement. Nay, rather that they must surely bring with them, sooner or later, as they have already brought, tokens of approbation unknown to all rival institutions working upon inferior principles, and through meaner influences.

"The past winter course of Lectures in the Faculty of Medicine, McGill College, terminated on the last Friday in April, 1857. The number of Students in attendance who matriculated were 95; of these 61 were from Canada West, 31 from Canada East, 2 from Nova Scotia, 1 from Prince Edward's Island. Matriculation is required every year.

Of these 43 passed their classical examinations. This exercise is required of all students who become candidates for graduation; it is confined to the Latin language, and is chiefly designed to test the pupil's familiarity with its construction and translation. The books used are the Pharmacopœias, or Gregory's Conspectus, or some Classic; the latter are optional. It requires to be undergone but once, and is generally passed in the first session of attendance. The time appointed is usually the month of December. The Faculty is gratified to be able to state that such has been the previous education and the present proficiency of the candidates, that very few required to be remanded for further study.

The Elementary or Primary Examination was satisfactorily passed by the eleven gentlemen whose names and residences follow.* They, as was necessary, had pursued their studies during three winter sessions, and attended at least two courses of Anatomy, Chemistry, Materia Medica and Institutes of Medicine, upon which branches their capacities were tested.

The excellence manifested by these gentlemen was so distributed that difficulty was experienced in deciding upon the comparative merits of several.

The Graduates in Medicine, the degree in this Faculty granted by the University being that of M.D., were 15 in number. Five were examined in all the branches together, the remainder on the senior branches, viz:—Practice of Medicine, Surgery, Midwifery and Medical Jurisprudence; these gentlemen having previously passed their Elementary examination. The intelligence evinced was without exception commendable, and in no respect inferior to the average of former years."

* They are omitted as they have already been given in the Chronicle. Vide Vol. v., No. 1.

The Announcement gives some interesting particulars of the rise and progress of the Faculty which will be found in the subjoined extract.

"In taking a retrospective view of its past condition the Faculty of Medicine of McGill College is reminded that twenty-eight years have elapsed since it was established. Its Lecturers were then the only authorized Teachers of Medicine in British North America; previously to incorporation with the University, they had lent their services to similar pursuits, and were associated together in 'the Montreal Medical Institute,' of which they were the founders, and this, as an independent School, was continued for five years after the date of its commencement in 1824. At this interesting period it counted but four chairs, and these were limited to practice of Medicine, Chemistry and Materia Medica, Midwifery, Anatomy and Surgery; the two last named were subsequently divided, and soon Chemistry and Materia Medica were taught separately; also Anatomy, while Surgery was united to Midwifery; in 1842, the latter connexion was severed, and each constituted itself an independent department. Three years afterwards Clinical Medicine and Surgery, Institutes of Medicine, Medical Jurisprudence and Botany were superadded; and in the next session Clinical Medicine was divided from Clinical Surgery; and in this position it is now, with a curriculum so adapted that it can afford a complete education in Medicine and Matriculants. Beginning as the Pioneer School in this Province, various adverse circumstances have had to be contended against.

Private Lunatic Asylum.—Taking into consideration the vast number of insane at present in the Province of Canada, (that is, if the late census is worthy of credit,) it is really surprising that no private institution for the reception of the mentally aberrant in the higher rank of life has heretofore been established. All the insane, whose friends have been able to pay for their treatment, have been, almost without exception, sent to the admirably arranged and well-conducted asylums of the United States. We are pleased to see that Dr. Litchfield, manager of the Provincial Lunatic Asylum, Kingston, has recently applied to the Justices assembled in Quarter Session for a license to establish a private lunatic asylum, in accordance with the requirements of the Statute 14 and 15 Vic., cap. 8th. Judge Mackenzie granted the license for seven months, "with the understanding that it would be renewed on expiry for a larger number of patients." Dr. Litchfield says in his application:—

"I beg, in accordance with the requirements of the Statute, to furnish a plan of the house and premises for which the license is desired, and have to state that there is thirty-four acres of land annexed to the said house, in a secluded and salubrious situation, and well adapted to the purposes of a private asylum.

"I propose that the license should be granted for six patients, viz., three ladies and three gentlemen. The accommodation is much needed for patients of the educated and wealthy classes, for whom the provision within the province is wholly insufficient. And the payments made on this account will go towards

diminishing the cost to the country of the asylum now in operation for female lunatics at Rockwood and the temporary asylum for male patients at the Penitentiary. The patients in these asylums at the present date number forty-eight, viz., thirty-three males and fifteen females.

"My interest consists solely in the property having been conveyed to me in trust for the Government, as Medical Superintendent of the asylums, pending the construction at Rockwood of the permanent asylum, for which a vote of money has been made by the Hon. the Provincial Legislature."

The Doctor deserves great credit for the disinterestedness of his motives in this matter; and the asylum, we have no doubt, will become a flourishing one under his able management.

OBITUARY.

On Tuesday, the 11th August, Dr. Marshall Hall died at Brighton, aged 67 years.

Science has lost one of the worthiest of her sons, medicine has lost a great master, and philosophy a great thinker. The clear and vivid intellect of this celebrated man has steadily and successfully risen superior to the depressing influences of disease for the last fifteen years. Even during the present year, when confined to one room, his chamber has been a scene of intellectual activity. Clear and penetrating, and impelled by a wide philanthropy, the last contribution of Dr. Marshall Hall to science has been a pre-eminently useful one to the cause of humanity.

Dr. Marshall Hall was born at Bashford, in Nottinghamshire, in the year 1790. His father was a manufacturer, and a man of no small capacity and information, and had the merit of being the first person to perceive the value of chlorine as a decolorizing agent, and applying it on a large scale.

But the first salient point in the life of Dr. Marshall Hall was his matriculation at Edinburgh University, in the year 1809. There did he first imbibe that enthusiastic love of science which has been his most marked characteristic. With youthful impetuosity he plunged into the study of chemistry. Not content with merely assimilating the accepted doctrines of the science, he boldly endeavored to push its boundaries farther. With wonderful power of generalization for so young a man, and with such small materials as then existed for the purpose, he pointed out that there was a grand distinction between all chemical bodies, which ruled their chemical affinities. He showed that this distinction was the presence or absence of oxygen. That oxygen compounds combined with oxygen compounds, and compounds not combined with oxygen compounds similarly devoid of that element; and that the two classes of

compounds did not combine together. He believed that this general law would elucidate other chemical doctrines, and might prove valuable in the prosecution of still more recondite principles. But a mind of such soaring aspirations was not likely to confine itself even to such a comparatively wide field as chemistry. The vast domain of medicine was before our student, rich in unexplored regions, abounding in all that could excite his eager spirit of inquiry, and reward his love of definite result. It was exactly at this period in the history of modern medicine that physicians were taking stock, as it were, of their old principles. Morbid anatomy, pursued in close connection with clinical medicine, was showing the defects of diagnosis. With the sagacious eye of one who was capable of seeing that the great necessity of the day was a science of diagnosis, Dr. Marshall Hall threw himself into the prosecution of this immensely important department of medicine at once. Here again we find fresh evidence of his eminently progressive spirit. No mere systematizing of what other men had gathered, but an original and comprehensive treatise resulted from the labors of his student life and early years in the profession.

In 1812 Marshall Hall took his degree of M. D., and shortly afterwards was appointed to the much-coveted post of house-physician, at the Royal Infirmary of Edinburgh. In the following year we find Dr. Hall lecturing on the Principles of Diagnosis to a class, amongst whom were Dr. Robert Lee and Professor Grant. It was from this course of lectures that the treatise on Diagnosis, which was first published in 1817, took its origin.

In 1814 Dr. Marshall Hall left Edinburgh, after a residence there of five years. Great as was the individuality of this remarkable man, we cannot but point out that he was reared in a great school, taught by great men, and infected with an enthusiasm which pervaded, in some degree, all who came within its magical circle. Before entering upon his career as a private practitioner, Dr. Hall determined to visit some of the continental schools. We find him, therefore, shortly after his departure successively at Paris, Berlin, and Göttingen. The journey was made partly on foot, and armed. At Göttingen Dr. Hall became acquainted with Blumenbach.

In 1815, He settled at Nottingham as a physician, and he speedily acquired no small reputation and practice. After a time, the appointment of physician to the General Hospital there was conferred upon him, and in that sphere he labored until his removal to London, about ten years after his first settlement at Nottingham. It was at this period of his career, that Dr. Hall made his researches into the effects of the

loss of blood, the result of which was embodied in a paper read before the Royal Medical and Chirurgical Society in 1824. A distinction was drawn between inflammation and irritation. It was pointed out that delirium and excitement were by no means necessarily declaratory of cerebral or meningeal inflammation, or even congestion. Loss of blood was shown to be at the root of much that had passed before for various grades of inflammation. Practical rules were educed both for treatment and diagnosis. It was shown that active inflammation produced a tolerance of bleeding from a free opening in the upright posture; and vice versa. Other works came forth from his pen about this time, for his mind was teeming with ideas, and his activity as an observer was unparalleled. It is hardly possible to enumerate all, but in 1827 came the "Commentaries upon various Diseases peculiar to females"—a work which may still be consulted with advantage.

It was in 1826, that Dr. Marshall Hall sought this great metropolis as the umbilicus of the world. So active and earnest a mind could not find enough to satisfy its eager cravings in a provincial town.

The next step in Dr. Marshall Hall's career was a series of researches into the circulation of the blood in the minute vessels of the batrachia. A great step in physiology resulted from these. It was shown that the capillary vessels, properly so-called, are distinct absolutely, both in structure and function, from the smallest arteries or veins; that the capillaries, or *methæmata*, are the vessels in which the nutritive changes in the economy are carried on.

But the great source of Dr. Marshall Hall's honor, the basis upon which his fame must rest in all time to come, was yet undeveloped; his paramount claims to the admiration of his contemporaries and of posterity consists in his discoveries concerning the nervous system. Like all really important discoveries in natural science, those of Dr. Marshall Hall have had great practical effects. That stupid heresy, that there is a vital distinction between the practical and theoretical man, was never more completely disproved than in the case of Marshall Hall. But we must endeavor to trace the progress of his researches. While engaged on the Essay on the Circulation of the Blood, it happened that a triton was decapitated. The headless body was divided into three portions: one consisted of the anterior extremities, another of the posterior, and a third of the tail. On irritating the last with a probe, it moved and coiled upwards; and similar phenomena occurred with the other segments of the body. Here, then, was a great question. Whence came that motor power? To set at rest that question, to solve that problem, has been the great labor of Dr. Marshall Hall's life.

The establishment of the reflex functions of this spinal cord; in short, the whole of the excito-motor physiology of the nervous system is the sole work of Dr. Marshall Hall. And not only this, but he has shown that there are in reality THREE great classes into which the various parts of the nervous system resolve themselves; the cerebral, or sentient-voluntary; the true spinal, or excito-motor; and the ganglionic. The true idea of a nervous centre could never be said to have existed before the time of Marshall Hall. The ideas of centric and eccentric action, of reflection, &c., so necessary to the comprehension of nerve-physiology, were unknown before the labors of this great discoverer. But these physiological discoveries were not mere barren facts. How rich a practical fund of therapeutical measures naturally follows the physiology and pathology of the excito-motor system, every well-informed physician can testify. The success of Dr. Marshall Hall in the treatment of nervous diseases was almost entirely the result of a rigid application of his own physiological discoveries to their pathology and therapeutics.

Since the promulgation of his researches upon the nervous system he has been principally occupied with extending, applying, and developing them in every possible direction. The admirable success with which he indoctrinated the profession at large with his views must be attributed as well to his native lucidity as to their inherent truth.

The last crowning effort of Dr. Marshall Hall in the cause of science and humanity has been his discovery of what is now universaly known as the "Marshall Hall Method" of restoring asphyxiated persons. It will be found detailed in an earlier number of this periodical. It is pleasing to find that this last labor of a great mind has been a labor of love, something added to the stock of human happiness, something taken away from the bitterness of life. It is singular enough that in the very place where Dr. Marshall Hall has drawn his last breath, two cases have lately occurred illustrating the superiority of the "Marshall Hall Method" over the empirical rules of the Royal Humane Society. In one case of drowning the warm bath was administered: in another, the "Marshall Hall Method" was resorted to: in the first case death was the result; in the second, restoration to life.

In the practice of his profession, Dr. Marshall Hall was very successful. He linked himself early and resolutely to a great subject and rose into fame upon his development of it. He realized an ample fortune as the reward of a life of unremitting toil.

It is somewhat remarkable that Dr. Marshall Hall never held the office of physician in an hospital in London. He was only physician to a dispensary for a short time. He lectured at the Aldersgate-street and

Webb-street School of Medicine, and also at St. Thomas's Hospital Medical School. He was a candidate for the Professorship of Medicine at University College upon one occasion; but matters assumed such an aspect as to induce Dr. Hall to retire from the field.

We have thus far considered Dr. Hall as a man of science. In other relations of life he was equally deserving of our highest respect. As a politician, he was liberal in the highest degree. He was a strictly moral man, and was deeply imbued with a sense of the obligation of a *practical* cultivation of religion. That which he thought right to do, he *did*, with unswerving honesty and courage. All subterfuge, trickery, quackery, and guile, were utterly foreign to his nature. So simple and childlike was he in disposition, as hardly to be able to imagine in others the guile which had no home in his own breast. It is believed that the death of Dr. Marshall Hall was caused by exhaustion produced by a stricture of the œsophagus of many years' standing, accompanied latterly, it was considered by many eminent surgeons, with malignant ulceration of the part. The above is taken from a fuller account in the *Lancet*.

HOSPITAL RETURNS.

MONTREAL GENERAL HOSPITAL.

1.—*General Dropsy: speedy cure.* (Reported by Mr. Anderson.)

Christy Ross, aged 40, native of Canada, entered on the 18th August 1857, under Dr. Wright. This woman enjoyed remarkably good health up to a short time previous to the period at which the disease showed itself. She is 13 years married, and has had seven children. The labour previous to the last was an abortion, at the fourth month of gestation, for which she could assign no cause; three years intervened between this and the time she gave birth to her last child; during this pregnancy she was for the last three months unable to leave her bed, from weakness and incessant vomiting whenever she attempted to sit up. Her feet were also swollen during this period; in fact she never felt herself quite well since the abortion. After the birth of her last child she recovered perfectly as on former occasions, except that the swelling of the lower extremities remained; this she never perceived during or subsequent to her former pregnancies. She was going about on the fourth day.

About fifteen days after her confinement, having as she thought, taken cold, she perceived her abdomen to enlarge, but she had none of the

other symptoms of a cold; she did not perceive during the accession of the swelling that any one part was more prominent or tense than another. She had an icteroid appearance, which came on at the time the swelling first showed itself, and became of a deeper hue as the disease advanced. Her last confinement occurred on the 4th of last March, and the enlargement of the abdomen began to be perceived a fortnight after; so that the disease had been advancing for five months previous to her admission; the enlargement increasing steadily during this time.

She had been treated for this affection by a Medical Man for three months, without any effect; and another proposed Paracentesis Abdominis.

During the three or four days after her admission, she was very desponding and lonesome, ready to find fault with every body and every thing. About the fifth day the œdema of the feet and legs had entirely disappeared, and the abdomen was much more flaccid. The despondency was also much less, having been carried off, as was supposed, by the general stream.

The treatment employed in this case was ol tiglii gtt. ij, the day after she entered, and repeated every fourth or fifth day; and the following Pill: ℞ Digitalis gr. i ss, Scillæ gr. i ss, pil Hydrarg gr. iij, M. ft. il. cap. ter in die.

The oil caused brisk purging, and she perspired a great deal, especially during the night. She felt considerable weakness; she was allowed to remain in bed for a fortnight after entering. A Tonic mixture was subsequently prescribed.

Under this treatment the swelling rapidly subsided, diminishing six inches in the circumference of the abdomen during a week. The yellow appearance of the skin faded also to a great extent; the countenance lost its formerly anxious look, and her spirits became much more enlivened. At her request she was dismissed on the 7th of September, the swelling having entirely disappeared, making in all about twenty days that she remained under treatment.

II.—*Cancer of the Cheek: Excision.*

On the 9th of September an operation for Cancer was performed, of which the following are the chief particulars:—

The disease had first appeared several months previously, a little externally to the right canthus of the mouth, as a protuberance, soft, reddish, and tender; it soon acquired the size of the top of a finger, and became more highly colored, presenting a weeping excoriated surface,

alternating with a thin scabby crust, and answering very much in description to the characters of a lupoid tubercle; latterly it had ulcerated and now its summit is marked by a comparatively deep excavated ulcer, looking like an inverted hollow cone of small size, lined by an unhealthy investment, whereupon no vestiges of any kind of granulations are to be seen;—the discharge is not copious, and apparently of an unhealthy sero-purulent fluid. This ulcerated fort rested upon a mound of indurated tissue of wider extent than itself, about the girth of a copper, with a perfectly definable periphery. No pain was felt, and its examination was not complained of. At the right extremity of the lower lip the mucous membrane had degenerated into an epithelial cancer, and the lining of the cheek, nearly opposite the centre of the main swelling, had a puckered excoriated look. The submaxillary glands were not enlarged, and the countenance did not express a malignant aspect. The patient was years of age, and was a hearty sturdy-looking man. Chlorid of zinc paste had been twice applied since admission without benefit.

Its excision was effected by taking out a wedge-shaped piece of the cheek; the incision began at the corner of the mouth beyond the disease of the lip, and running in a long straight line, ended over the lower border of the inferior maxilla, near the anterior border of the masseter, the outer incision began about one inch and a quarter further back in the cheek than the former, across the the outer segment of the tumor, and was brought down to the same termination; a few strokes with the scalpel served to sever the mucous membrane and other connexions when the mass was removed. A suspicious portion of the tumor was found remaining in the outer cut, and was dissected out. Four ligatures were applied. Having thus completed the extirpation, Dr. Wright next brought the divided margins in apposition and confined them in close proximity by the twisted suture. The needles were removed on the third day after; not a single unfavourable symptom occurred; the whole line of incision healed by the first intention, except the tails, which necessarily suppurated, for the ligatures were drawn through them. The threads had detached themselves by the tenth day, and on the twenty-first the patient left the Hospital well.

III.—*Molluscum, supposed Cirrhosis.* (Reported by Mr. J. McGarry.)

Patrick McGuire, aged 35, a plasterer by trade, was admitted into the Montreal General Hospital, August 4th, 1857, under the care of Doctor Wright, complaining of Diarrhœa, which attacked him four days before his admission. He is a man of medium height, rather thin, and of a

sallow complexion. His skin, especially that of the abdomen, is completely studded with small tumours, from the size of a large pin's head to that of a hazel nut, constituting the disease called *Molluscum*; most of these tumours have a large base, though some are attached by means of a pedicle. On examination of the liver, it was found to be much enlarged, its lower margin reaching nearer to the crest of the Ilium, and supposed to be in the first stage of Cirrhosis. He has been a pretty *hard* drinker for the past five years, and for the last two months drank more than usual. There is no enlargement of the superficial veins of abdomen, no ascites. He had several times been troubled with rather copious epistaxis, and has suffered considerably from dyspeptic symptoms To arrest the Diarrhœa the following powders were ordered :— ℞ Hyd. cum cret; Pulv. Rhei; Pulv. Ipecac co. *aa* grs. v.; M ft. pulv. in cap 1 ter in die.

Aug. 9th. Omit powders, as diarrhœa is arrested; and give, ext. Taraxaci, grs. v. quatum in die. General health much improved.

Aug. 17th. Feels better, no motion since August 15th; pulse 68, full and strong; appetite not very good; is always very thirsty; urine high coloured; sleeps well at night. From this date till the 24th August nothing worth noting occurred, save that he kept getting progressively better; though not much in outward appearance, as the skin still preserved a subisteroid hue. Diarrhœa did not again return after it was arrested. Three of the tumours of different sizes were selected, and nitrate of silver, in the solid form, applied. It caused some slight swelling around the base, but when this had subsided the tumours were much smaller.

MEDICAL APPOINTMENTS.

Secretary's Office,
Toronto, August 29, 1857.

His Excellency the Administrator of the Government has been pleased to make the following appointments, viz ;—

Robert Henderson, Esquire, to be an Associate Coronor for the United Counties of Peterborough and Victoria. He has also been pleased to grant a License to Michael William Turner, of the Town of Simcoe, Esquire, M. R. C. of Surgeons, England, to practise Physic, Surgery and Midwifery in Upper Canada.

19th Sept. 1857.

His Excellency has been pleased to make the following appointments, viz:

Zephaniah S. M. Hersey, Esquire to be an Associate Coroner for the United Counties of Prescott and Russell.

James Wilson, of Perth. Alexander Long, of Smith's Falls, and William Wilson, of Carleton Place, Esquires, Surgeons, to be a Board for examining Applicants for Militia Pensions in Upper Canada, for the United Counties of Lanark and Renfrew.

BUREAU OF AGRICULTURE AND STATISTICS,
Toronto, 28th August, 1857.

PATENTS OF INVENTIONS.—His Excellency the Administrator of the Government has been pleased to grant Letters Patent of Inventions for a period of *Fourteen Years*, from the dates thereof, the following persons, viz :—

Edwin M. Chaffee, of the city of Montreal, Merchant, for 'A new and useful Improvement in the preparing, coloring, and applying India Rubber and Gutta Percha to cloth of all kinds, leather, and other articles, without the use of a solvent, under the name of Chaffee's Improvement in Rubber and Gutta Percha.'—Dated 13th July, 1857.

Leonard Wray, of the town of Brantford, in the County of Brant Agriculturist, for 'A process for producing and manufacturing Fine Crystalized Sugar, Syrup, and Molasses from the African and Chinese and all other varieties of the Holcus Saccharatus of Linnæus.'—Dated 23rd July, 1857.

George Bolster, of the city of Toronto, in the County of York, yeoman for 'A Mastic-Canvass Fire and Water Proof Cement for Roofing.'—Dated 23rd July, 1857.

Wm. Spofford, the younger, of the township of Markham, in the County of York, farmer, for 'A new Tanning Process for tanning Hides, &c.'—Dated 23rd July, 1859.

MEDICAL NEWS.

Rokitansky has just published a second edition of his *Pathologische Anatomie*; the work is said to be so completely transformed as to be irrecognizable.—A medical man of 40 years practice in Philadelphia informed a friend the other day that he had walked in the above time 150,000 miles.—The Western Lancet mentions the death of a horse owned by Dr. F. Dorsey, of Hagerstown, Md., at the advanced age of 45 yrs.; the Doctor had used him for 37 yrs. in his practice; he has done the profession some service.—The number of patients admitted into the Royal Orthopœdic Hospital during 1856 were 1533. The receipts for the year were £4022 15s. 1d.—One of the so-called "heads of the profession" in New York boasts that he has a hundred young doctors in town, who are ever hunting up consultations for him: so that half of his income was derived from this source.

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ORIGINAL COMMUNICATIONS.

ART. XVIII.—*Further Observations upon the Treatment of Chronic Hydrarthrosis of the Knee Joint by Puncture and Injections of Iodine.* By ROBERT L. MACDONNELL, M.D., Surgeon to St. Patrick's Hospital, Montreal; formerly Lecturer on Clinical Medicine, and on the Institutes of Medicine, University of McGill College.

In the number of the Journal for June, 1857, I directed the attention of the Profession to the utility of "Injections of Iodine" in cases of Hydrarthrosis of the knee-joint, which had resisted all the usual plans of treatment, and which had ended in confirmed lameness. Since then, I have met with another example of the disease, in which the ordinary method was unsuccessfully employed by myself, whilst the patient was placed in conditions very favourable for his recovery, being a patient in St. Patrick's Hospital, under the daily observation of myself and colleagues, and where the most watchful anxiety was evinced by the attendants that in every particular the usual remedies should be administered in such a manner as to insure their efficacy. My reason for not resorting to puncture and injection at once, was, that having expressly pointed out that I did not advise this plan of treatment except where others had failed, I was unwilling to be the first to disregard the admonition.

Case.—J. W., aged 13, was sent from a town in Vermont, to consult Dr. Howard, the Oculist, for an affection of his Eyes; he was admitted into St. Patrick's Hospital, where it was observed that in addition to the disease of the eyes, he also laboured under a Chronic Hydrarthrosis of the left knee-joint, which had caused lameness, and was attended with much pain at the inner side of the joint and at the insertion of the ligamentum patella; the joint was swollen, and globular in appearance; the increase in size amounted to nearly two inches more than the healthy articulation; the swelling was soft, fluctuated on pressure, and the fluid could be forced from the lower part to above the patella, on the front of the femur; a crepitating sensation was experienced when the joint was minutely examined. There was no heat of the joint nor discoloration. He was placed under a mild mercurial course, combined with blistering, stimulating liniments, rest, in the recumbent posture, starch bandages, strapping with the mercurial plaster, and the mercury was followed by a course of Hydriodate of Potash. After a lapse of nearly two months no improvement was perceptible, and I resolved to puncture the joint and inject with iodine: accordingly this operation was performed in the manner already described, on the 1st July; no pain followed the operation. About four ounces of fluid was drawn off, it was transparent, of a light straw colour, and coagulated; slightly on cooling, the opening was closed with adhesive plaister, a wet roller was carried round the limb from the toes to above the knee-joint, and a padded splint was applied to the back of the leg and thigh. No uneasiness or pain followed the operation, and the joint quickly regained its natural appearance; the pain vanished, and at the end of ten days he was able to walk about: but as a measure of precaution I still kept the joint supported by a starched bandage. This patient was seen by some American Surgeons during their visit to the Scientific Association, held here last August, as well as by some practitioners of this city.

The above makes the seventh case in which I have employed in Chronic Hydrarthrosis of the knee-joint, Injections of Iodine, and I have not, in a single instance, witnessed the least unpleasant result follow the practice, and in all, it has been eminently successful. Before concluding, I would direct attention to the following points:—

1st. The necessity of a careful diagnosis.—It is in Chronic Hydrarthrosis alone, that I recommend Iodine Injections.

2nd. Puncture the Sac above the level of the patella and on the front of the femur, having first made the tumour tense by a bandage carried round its lower portion.

3rd. Inject two drachms of Tincture of Iodine with two drachms of luke-warm water.

4th. Having injected that amount of the fluid, manipulate the joint, so as to bring all its surface into contact with the fluid, which is then to be allowed to remain.

5th. Close the external wound and surround the joint with a wet bandage, which should be carried upwards from the ankle to above the knee.

6th. Keep the limb in a straight position on a padded splint.

7th. Do not allow any motion to take place for at least a week after the operation.

8th. When the patient is allowed to leave his bed, take off the wet bandage and surround the joint with a starched bandage.

ART. XIX.—*Remarkable Case of Surgery—the Testicles and Scrotum completely carried away.* By P. R. Shaver, M.D., Stratford, C.W.

Thomas Meridith, aged 40, was engaged on the Buffalo and Lake Huron Railroad as a blaster of earth and stone. Upon the 29th September last he was occupied in blasting granite, and, after having deposited the powder in the cavity intended for its reception, he receded to his accustomed place awaiting the expl sion. After waiting for a long time, he was informed that the *fuse* had not succeeded in igniting the gunpowder, and upon repairing to the spot he found, as he fancied, the fuse quite extinguished. He then recommenced boring another orifice, standing astride of the mound which he wished to blast, and when so engaged the explosion occurred. When I arrived on the ground, about twenty minutes after the accident, I found my patient suffering under *shock*, pale and pulseless. Upon an examination I found the charge had taken effect upon his privates, carrying away the whole of the scrotum, both testicles, spermatic cords and vessels. The whole of the abdomen was burned quite black, the ulna of the right arm was fractured by a small spicula of stone, and indeed the greater part of the surface of his body was completely surcharged with small stones and granite embedded underneath the skin. After removing these foreign bodies with a strong pair of forceps, I then directed my attention to the graver wound, namely, the scrotum. After removing the parts which retained no vitality with a sharp scalpel, I brought the parts together as well as was practicable, awaiting sloughing, if reaction ever did occur. In about two hours after the receipt of the injury nature began to rally, and the reaction was, as usual in proportion to the shock, severe.

I succeeded in keeping the action at bay by the usual antiphlogistics and upon the seventh day after the injury the sloughs were separated, leaving the pubic bones exposed, the whole of the surrounding cuticle

gone, as far as the anus posteriorly, and anteriorly as far as the pubis. Fortunately the urethra was quite entire and uninjured. I now applied the cold water dressings diligently, administered wine and tonics *ad libitum*, and supported my patient energetically and faithfully. And, strange to say, he is now convalescent, quite sound and well, save he is minus his testicles, which were blown some fifty feet from the place where he received the fearful blow.

ART. XX.—*Dropsy Cured by Croton Oil.* By J. L. Stevenson, M.D., L.R.C.S.E.

Having read an article by Dr. Fife in the last number of Braithwaite's Retrospect "on the Treatment of Dropsy by Croton Oil," I determined to try it the first opportunity.

The first case was a lady aged about 30, who came to my surgery on the 27th August, with acute anasarca of the lower extremities. The swelling extended nearly up to the groin; there was considerable dyspnœa and palpitation of the heart; urine scanty and high coloured, no albumen. On the 29th, the swelling had increased to such an extent that the integuments were almost bursting: the urine nearly suppressed. I immediately put her on Croton oil, in half-drop doses every morning. After the second dose the swelling began to abate, the urine increased in quantity, and the dyspnœa entirely disappeared.

Sept. 6th.—The swelling entirely disappeared; urine natural in quantity; feels quite well.

The second case was that of a boy aged 6, to whom I was called Sept. 8th. Had had scarlatina about four weeks previously; subsequently caught cold. The abdomen was greatly distended with fluid, also the scrotum and penis, which were quite transparent from the distension of the fluid. The urine scanty and high coloured, bowels regular, considerable thirst, appetite good. I ordered him Croton Oil in doses of one third of a drop every morning.

Sept. 12th.—Fluid entirely disappeared from scrotum and penis, abdomen smaller.

Continued this treatment for two weeks, at the expiration of which time he was completely well.

From these two cases I think the effects of the Croton Oil are due more to its stimulating the absorbents than to its drastic properties, for in the first case it only caused three or four evacuations every morning and in the second never more than two, and I may state, in neither of the cases did the oil cause any griping.

Stratford, Oct. 13th, 1857.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. XI.—*A Theoretical and Practical Treatise on Midwifery, including the Diseases of Pregnancy and Parturition, and the attentions required by the Child from birth to the period of weaning;* by P. Cazeaux, member of the Imperial Academy of Medicine, Adjunct Professor in the Faculty of Medicine of Paris, &c., &c. Adopted by the Superior Council of Public Instruction, and placed, by ministerial decision, in the rank of the classical works designed for the use of Midwife Students in the Maternity Hospital of Paris. Second American, translated from the fifth French edition, by Wm. R. Bullock, M. D., with one hundred and forty illustrations; pp. 992. Philadelphia: Lindsay and Blakiston. Montreal: B Dawson. Quebec: Middleton and Dawson.

"In the sciences of observation," says Professor Cazeaux, "a new work is necessarily enriched by the labours of all antecedent writers, and therefore its great merit consists in collecting the scattered materials and forming out of them a body of doctrine, which it illustrates in the clearest and simplest manner possible. Such is the end I have endeavoured to attain; and the medical public, and students especially, must judge whether I have succeeded in the attempt." The fact of the work whose title stands at the head of this article having attained a fifth edition in France, notwithstanding the publication of a spurious copy in Belgium, is sufficient evidence that in the estimation of his professional brethren in that country his attempt has been completely successful. The cordiality with which the first American edition, translated by Professor Thomas of Philadelphia, was received by the profession of this continent, and the demand which exists for a second edition, shows that a hearty appreciation of the faithfulness and efficiency with which the author has accomplished his task is not confined solely to the medical men and students of France.

In preparing the fifth edition for publication, Professor Cazeaux has carefully reviewed every division of his book, and increased it so materially, both by adding to what he had already written and in the form of entirely new chapters, the work is now about twice as voluminous as when the first edition was issued from the press. In the short notice we purpose making, it is our intention to examine the parts to which our author has added new matter, and those which he now introduces for the first time.

Book 5, which treats of the Pathology of Pregnancy, or the diseases induced by the pregnant condition, is one well worthy of attentive

perusal. Cazeaux adopts the classification of Désormeaux, who ranges all these diseases under the heads of: lesions of digestion, of circulation, of respiration, of the secretions and excretions, of locomotion, and of the sensorial and intellectual functions. Of all the lesions of digestion, vomiting is certainly the most troublesome to the physician and distressing to the patient. Cases occur which resist the best directed efforts for their mitigation; and the vast number of remedies that have been recommended by authorities at different times, prove that even the majority are with difficulty alleviated. Vomiting may appear at any period of gestation, but, as a general rule, it usually occurs soon after impregnation, and extends over a period of two or three months. It may not make its appearance until the fourth or fifth month, or indeed till the latter end of gestation. According to Capuron, when it occurs at an early period, it is to be referred to the sympathy which exists between the uterus and stomach, the irritation of the former organ being communicated to the latter; when later, it is to be attributed to a plethoric condition of the system, produced by a suppression of the menses, particularly in women of a sanguine temperament; and when it appears near the termination of pregnancy, it depends upon the mechanical pressure of the gravid uterus, which, from its size, presses considerably on the abdominal viscera, and thus interferes with the healthy performance of their functions.

All are agreed as to the vomiting being caused by the intimate sympathies existing between the womb and stomach, but still opinions vary greatly upon the etiology of the affection. "L'étiologie que je viens de proposer," says Gardien, "sur le vomissement qui survient dans les premiers temps de la grossesse, suppose deux choses: la première, qu'il peut exister lésion dans un organe, parceque les fonctions d'un autre sont troublées; la seconde, que cette affection symptomatique peut quelquefois augmenter la sensibilité, et d'autres fois la diminuer." M. Dance and Dr. Burns were of opinion that inflammatory affections of the uterus, the membranes of the ovum, or the placenta, frequently produce vomiting. According to Carus, a common cause "is overfulness of the portal system, in consequence of the increased vascular action of the genital system, which plethoric constitution often gives rise to inflammatory affections." Campbell considers torpor of the bowels a very fertile source of nausea and vomiting in the gravid state; and Churchill is of opinion that we may place bad smells, peculiar odours and indigestible food, or a torpid state of the bowels, among the occasional exciting causes. Chomel attributed it to softening of the stomach and fatty degeneration of the liver; and lastly, Dr. Bennet, true to his hobby, is fully persuaded that it is to be attributed in almost every instance to the presence of

inflammatory ulceration of the os or cervix uteri—that fruitful source, in his opinion, of the ills with which the female portion of the human race are afflicted. "For my own part," he adds, "since my attention has been directed to this subject, I have *almost invariably* found ulceration of the neck in cases of this kind." Our author, and in this we agree with him, cannot fully receive this opinion of the "English accoucheur,' for, having examined with the speculum four primiparous women affected with obstinate vomiting, he found the cervix to be perfectly healthy.

The vomitings vary much as to their frequency, intensity and duration. In the simpler cases, the person merely vomits on rising, or after one or more of the daily meals, and there is little, if any, accompanying distress. Sometimes, however, the ingestion of food causes severe pain, which, being increased by pressure, may lead one to imagine for a moment that it indicates inflammation of the stomach, a condition that very rarely obtains in cases of vomiting from pregnancy. There are instances, fortunately exceptional, in which the affection is so violent and persistent that the strength of the patient becomes completely exhausted, the vital powers are prostrated, extreme emaciation ensues, and death closes the scene. The disease, says M. Chomel, referring to these cases, is characterized by frequent bilious vomiting, an acid, fœtid breath, and fever; then the brain becomes involved, and we have delirium, coma and death. "The views of M. Dubois correspond closely with those of M. Chomel, and, like him, he describes three stages. In the first stage the vomiting is very frequent, and occurs at all times of the day. It is very obstinate, and causes all, or nearly all, of the food to be rejected, even liquids not being retained. This is soon followed by serious symptoms, arising from deficient nutrition, as debility, emaciation, and alteration of the features. To these symptoms I would add an extreme disgust and aversion for food of any kind,—a repugnance so invincible as to defy the entreaties of the family and the repeated urgent solicitations of the physician Soon after, the symptoms peculiar to the second stage begin to appear. They are, frequency of pulse, great thirst, and a remarkably acid breath. The fœtidity and acidity of the breath, says M. Chomel, are so great as to strike the attention immediately upon entering the chamber. The smell is comparable to that of vinegar. In three cases, however, two of which proved fatal, I was unable to perceive this odour. This state, which is of variable duration, is generally followed in a short time by a third period, marked by cerebral symptoms. The patient suffers hallucinations, intolerable neuralgic pains, and disordered vision; the vomiting lessens or stops, a comatose sleep comes on, and death soon ensues." p. 268.

Our readers must not imagine that these formidable cases are by any means frequent, they are, on the contrary, extremely rare, and may not be met with for years, even by physicians in extensive mid-wifery practice.

The treatment of vomiting, as laid down in most works, is exceedingly conflicting, and must confuse the student of medicine, as there is no order in the arrangement; this, that, and the other remedy it is stated has been employed by this, that, and the other authority with success; and so on to the end of the chapter. There is no classification of the cases, with the view of pointing out what particular remedies are apt to be beneficial in certain particular cases; the reader is left to select at pleasure from the hotchpotch what drug he most fancies. Now, when a practitioner is consulted in a case of emesis during pregnancy, his first duty, we conceive, is, to ascertain if there be present any existing lesion, any disorder of function, which might, in conjunction with the influence of a gravid uterus, or even independent of such condition, produce vomiting. Otherwise, he cannot but treat his patient empirically; for, it is quite evident that the presence of an ulcerated cervix uteri, of a torpid state of the bowels, or of an inflamed mucous membrane of the stomach, will modify the treatment materially.

Where vomiting is slight, or where it evidently depends upon the sympathy which we have already spoken of as existing between the two organs, the treatment indicated consists in a carefully regulated diet, and the judicious administration of some of the sedatives and anti-emetics. Should there be any acidity of the secretions, an alkali ought to be combined with them. When it is accompanied by a torpid condition of the bowels, purgatives will be the class of remedies from which the greatest success may be expected. If there be an ulcerated neck of the womb, or an inflamed stomach, treatment directed for the relief and cure of these conditions, will, in all probability, be followed by the happiest results as regards the cure of the emesis. There is one form of treatment which has been said to be followed by real success, but of which we cannot speak except in terms of condemnation, viz: the administration of alcoholic liquors to such an extent as to produce intoxication. M. Rayer says he has used them with great advantage, and M. Moreau and Prof. Meigs are warm advocates for the use of champagne. The latter gentleman, in addressing his class, uses the following strong language:—"I, however, dare very confidently to advise you in all cases of obstinate vomiting, connected with pregnancy, to allow your patients to drink champagne *ad libitum*; since, in so great a multitude of examples of the kind, I have found it to procure a perfect relief." It would be interesting to know how many of the learned Professor's lady

patients subsequently to their cure, continued to indulge in libations of the exhilirating fluid. This, we conceive to be the great danger to be apprehended in the administration of stimulants to females, particularly when they are pushed to the extent of producing intoxication. How self-accusing would necessarily be the reflections of a physician in contemplating the fact that by his means, that passion, the gratification of which tends more than anything else to blunt the finer sensibilities of our nature and imbrute its unfortunate victim, had been implanted in the breast of a heretofore gentle, affectionate and loveable being. We would advise our young readers to pause ere they follow the instructions of such eminent men as Rayer, Cazeaux, Moreau and Meigs, when they advise the intoxication of patients for the relief of vomiting in pregnancy. Ascertain, as clearly and fully as possible, the etiology of the particular case; treat it according to rational principles, and our word for it, a cure may be affected, where such is possible, without having recourse to the revolting and unprofessional expedient of making the patient drunk.

It will occasionally happen, however, that notwithstanding the employment of various measures, the vomiting still continues in its frequency and intensity, and the patient gradually becomes weak and emaciated. Here then an important question presents itself, are we to allow the case to proceed, trusting in the powers of the system to sustain the patient until full term is reached, and hoping in the meantime that the emesis may soon terminate, or shall we have recourse to the fearful alternative of producing an abortion and thus remove the source of the irritation which is the cause of all the mischief going on? A very grave question, indeed, and one that will agitate the mind of every conscientious physician when circumstances force it on his attention. Distinguished English accoucheurs are decidedly in favour, whenever all other means fail, of inducing premature labour. "In such a case," says Churchill, "almost any remedy would be justifiable; and one that may afford an additional chance of safety to one of the parties implicated, must be hailed as a boon of great magnitude." Denman, Blundell, Davis, Merriman and Burns have had recourse to this treatment with success. Our author is decidedly opposed to any interference of the kind previous to the seventh month, and his reasons for such opposition are exceedingly cogent. "When a woman having a contracted pelvis presents herself to a physician, he knows very well that if the pregnancy be allowed to go on until term, he will have to choose between embryotomy and the Cæsarian operation; also, that in some cases the latter operation will be the only resource. If, after mature consideration of the inevitable consequences of the one and the probable consequences

of the other, he decides upon the mutilation of the child, it will doubtless appear to him reasonable not to wait until the increased size of the fœtus at term shall add to the difficulties and dangers of embryotomy; therefore, the production of abortion within the first four months of gestation will seem to be fully justifiable. But the conditions are different when the life of the mother is compromised by vomiting, however severe it may be. In the first case the danger is inevitable; and unless abortion occurs spontaneously the Cæsarian section is the only resource, and we are aware of the usual consequence of the latter. But however intense the vomitings may be, and notwithstanding the state of exhaustion to which they reduce the female, still they are not inevitably fatal. Patients, whose condition justly excited the greatest solicitude, have been known to resist until the latter months, and even until the term of their pregnancy, and then give birth to strong and healthy children. Others, whom the vomiting had reduced to a hopeless condition, have been suddenly restored to the most complete health." Of the latter kind of cases, one fell beneath the notice of Professor Cazeaux, and three were related to him by M. P. Dubois. The operation, moreover, is not devoid of danger; for, although successful cases have been recorded by the British authorities already referred to, many unsuccessful cases doubtless remain unrecorded. Our author has a personal knowledge of seven cases in which the operation was performed by skilfull hands. "Of these, but one woman survived; all the others perished, one of the latter dying only fifteen days after the first attempt, and ten days after the abortion was accomplished." To those who refer the failure in these cases to the fact that the operations had been delayed until the vital powers of the patient had become too exhausted, he pertinently replies, I believe this fully; but here it is that the most difficult question arises. When is the operation proper? If you act too soon may it not be said, whilst instancing the cases of spontaneous cessation of the vomiting, as in those which have been quoted, that you have destroyed the fœtus without advantage? If you act too late, may you not be equally reproached, in view of the failure of all known operations, with an attempt which may have hastened the fatal termination? Where will the prudent practitioner place the limit of expediency?

Recent chemical researches into the composition of the blood of pregnant women, has enabled us to truly appreciate the character of certain morbid conditions present during the period of gestation. Formerly, when a woman complained of headache, vertigo, dimness of vision, ringing of the ears, flushings of the face, &c., it was immediately attributed to plethora, and bleeding was at once proposed and practised. Now, however, and we are in a great measure indebted for it to M.

Cazeaux, these symptoms are regarded as the result of a Chloroanæmic state of the system; which is rather to be treated by the judicious administration of some one of the preparations of iron, combined with tonics. In pregnancy the blood is darker than at other periods, its coloured corpuscles are diminished in number; the water is materially increased; the fibrine is relatively augmented, in consequence of which, when the blood coagulates it has a thin layer of buff on its surface, and the amount of albumen in the serum is diminished. "It is now well proved that the essential character of plethora is based upon a great increase in the proportion of the blood corpuscles, as their diminution is the distinctive fact in anæmia. Now, if we admit with M. M. Andral and Gavarret, that the mean normal proportion of corpuscles is 127, or with M. M. Becquerel and Rodier that it is 141 for men and 125 for women, it will be seen that all the analyses made up to the present time give a much lower mean for a woman at an advanced stage of pregnancy. Thus, of 34 bleedings examined by Andral and Gavarret, but one specimen exhibited, at the end of the second month, a proportion of corpuscles greater than the physiological mean, namely 145. In one only, pregnant between one and two months, did the corpuscles reach the physiological standard of 128. In all the remaining 32 cases the corpuscles were below this point, ranging in 6 cases from 125 to 120, and in the other 26, from 120 to 95." Page 276.

The use of Anæsthetics in midwifery has produced a great deal of angry discussion in the medical world. The opponents of the practice have gone to one extreme, asserting that it tends to induce many frightful conditions which it is the desire of every practitioner to avoid. It is liable say they to cause death; to arrest completely, or diminish materially, uterine action; to produce alarming post partem hemorrhage, or to bring on insanity and puerperal convulsions. The advocates for the employment of chloroform and ether in obstetric practice, on the other hand, go to the other extreme and affirm boldly that when either of these anæsthetics is carefully administered there is not the slightest danger of any accident occurring. The truth, as is commonly found, lies in the mean. The statements of the alarmists are greatly exaggerated, and they have formed their conclusions from insufficient data; whilst those of their opponents are given recklessly, and without reference to certain facts which militate strongly against their views. That chloroform may produce death, is a fact unfortunately too well established to be for a moment gainsayed. Surgeons of eminence, who always adopt every precaution for the safety of their patients, have nevertheless lost individuals, during operations, from the effects of the inhalation of chloroform. And death, moreover, is not always caused by the inhalation of a great quan-

tity, the reverse indeed being the rule. A small dose, in some peculiar constitutions, having a powerfully poisonous effect. It is not long since we nearly lost a patient, from whose lip we were removing a fibrous tumour. The patient, a young girl of nervous temperament, took the chloroform readily, holding her arms up in the air and clenching her hands firmly. She made no efforts to remove the towel, there was no period of excitement observable, nor did she have any spasms. In a few minutes her arms gradually fell to her side, and we proceeded to operate. Her pulse at this time was full and regular, and her breathing perfectly tranquil. The operation, which occupied but a minute or two was scarcely completed when we noticed that a great and sudden change had taken place in our patient. Her eye was fixed and glassy; her lips pale and bloodless, and her pulse almost imperceptible. We lost no time in having recourse to the manipulations recommended by Dr. Marshal Hall for the recovery of those in state of asphyxia; she was placed opposite an open window; ammonia was placed beneath her nostrils; and as soon as it became practicable stimulants were given internally. When she recovered, she stated that from the time of the first few inspirations of the chloroform vapour, she was entirely oblivious to everything, and was not conscious at the time of what was being done to her. The dose in this case was *forty-five minims*. As many cases of death have occurred then from the use of chloroform, it is not a substance to be given in every slight or trivial case. We cannot agree with Dr. Simpson that it should be administered in all labours whether natural or difficult, but rather side with those who would have its use confined exclusively to cases of difficult parturition.

Dr. Murphy, who has published an excellent little work, entitled "Chloroform, its properties and safety in child-birth," gives excellent rules for the administration of chloroform, which we transcribe for the benefit of our readers:—Rule 1st.—Let the chloroform be pure. If rubbed on the hands the smell should be fragrant, not pungent like sulphuric ether. If inspired there is a sense of warmth in the mouth, a fruity flavour, no pungency; if the strength of the vapour be sufficient, it will excite a slight cough; but if impure, the cough is irritating. About thirty minims will be sufficient in the first instance. 2nd.—When labour has commenced, do not interfere so long as the patient bears her pains well; if she be not teased with short, very severe and inefficient pains, chloroform need not be given; if, on the contrary, the severity of the first stage be such, the anguish of the patient so great, that pain is evidently a cause of prostration, chloroform may be given with great benefit. 3rd.—Always commence with a small dose, about thirty minims; if it agree with the patient no inconvenience is caused,

but she will generally complain that it is doing her no good; the quantity may then be increased, until on inhalation the exhibiter finds that she cannot take a full inspiration without cough. 4th.—In the second stage of labour, chloroform may be given when the head is approaching the perineum, or before then if the pains become intolerable; this may be known not merely by their greater intensity when the uterus is in action, but also by the restlessness of the patient in the intervals; she is watchful, dispirited, still crying, but in a more subdued tone, from pain and a feeling of soreness. 5th.—When the head arrives at the perineum, chloroform may be given in a fuller dose, if it have not already accumulated. The perineum yields more readily under its influence, and the severity of the pains is controlled without any loss of force. This rule applies especially to cases in which powerful forcing pains are acting against the perineum at the hazard of its laceration. 6th.—When operations are necessary, if they are not severe,—as, for instance, some forceps operations,—chloroform may be given in the same manner as in natural labour, but always after the instrument is applied; if severe, it may be given as in surgical operations, but not to the same extent. Hence an assistant is necessary who is conversant with the properties of this anæsthetic. It is obvious that the same person cannot operate and give simultaneously the full soporific dose of this agent. 7th—It should be applied to the mouth just before the pain commences, two or three full inspirations taken, and the moment the action of the uterus ceases it should be withdrawn; it should never be applied in the interval between the pains. 8th—When inhalation is continued in this interrupted manner for some time, if any alteration be observed in the countenance or manner of the patient,—if the face is flushed or bloated, or tinged with a slight lividity,—if she ramble or become hysterical, let it be withdrawn and the face of the patient fanned; wait until the pains return to their original severity before renewing the inhalation, when it is probable that these symptoms will not return. 9th.—In some instances the patient is very intolerant of her pains, and if given chloroform to relieve them, she becomes hysterical, crying, perhaps louder than before it was inhaled; in these cases it is better to induce soper, which may be easily done without stertor. Whenever sopor is brought on, the closest attention should be given to the countenance,—observe the irritability of the eyelids,—to the respiration,—notice its frequency, and especially stertor,—to the pulse,—mark its strength. 10th.—There should be the freest circulation of air in the apartment, and if after delivery there should be any feeling of faintness or nausea, ammonia in effervescence will relieve it.

There are many other matters in this new edition of Cazeaux's Midwifery that we would like to notice, did our space permit. We must,

however, close here, and refer our readers to the work itself. Dr. Bullock deserves great credit for his excellent translation.

ART. XII.—*On the Diseases, Injuries, and Malformations of the Rectum and Anus, with remarks on Habitual Constipation.* By T. J. Ashton, Surgeon to the Blenheim Dispensary, Fellow of the Royal Medico-Chirurgical Society, Member of the Pathological Society of London, Corresponding Member of the Pathological Society of Montreal, Member of the Council of the Harveian Society, formerly House Surgeon to the University College Hospital. Second edition, pp. 389. London: John Churchill, New Burlington Street. Montreal: B. Dawson.

In our third volume we noticed favourably the first edition of this, the best and most complete work that has yet appeared in the English language on the subject of which it treats. It affords us satisfaction to witness that a second edition has been so soon demanded, as it is proof that the profession of Great Britain have formed a favourable opinion of the value of the work. We are surprised that some of the enterprising publishers in the United States, have not made arrangements ere this for its republication. Books of far less merit have frequently been reprinted.

Among other chapters Mr. Ashton has one on habitual costiveness, a condition which is very common, and one that often continues in spite of the most judicious treatment. When present, it is the cause, by its sympathetic effects, of various disordered conditions, which render the life of the patient miserable. And those functional derangements are exceedingly apt, when they have existed for any time, to eventuate in serious organic diseases. Fæcal accumulations occur in persons of sedentary habits, or those of a lax fibre, and those who through laziness neglect to empty, at stated periods, bowels loaded with matters which nature intended should be voided daily from them. It is one of the things hard to be accounted for, that a man should willingly make himself a walking cloaca, a receptacle for the conservation of his own fæces. The treatment of habitual constipation resolves itself into a few simple rules. 1st. The patient must be induced to "solicit nature" at some certain hour every day, the morning after breakfast being the best time. 2nd. Medicines should be administered for the purpose of acting as laxative, and as tonics to the relaxed bowels. 3rd. Exercise performed regularly and within fatigue should on no account be neglected.

ART. XIII.—*The Physicians Visiting List, Diary and Book of Engagements for* 1858.—Philadelphia, Lindsay and Blakiston; Montreal B. Dawson; Quebec, Middleton and Dawson.

The publishers have met, as was to be expected, with success in the publication of this exceedingly useful book. They say: "It is still held in high estimation by the profession, a very gratifying fact, and one which enables them to renew again with much confidence, thanks to their many friends for the very flattering praise bestowed on it, not only by continuing to use it themselves, but by their high recommendations of its use to others." For the information of those who have not as yet used the Visiting List, we may state that it contains an Almanac Table of Signs; Poisons and their antidotes; Table for calculating the period of Utero gestation; Blank leaves for Visiting List—for memoranda, &c.,—for addresses of patients and others—for addresses of nurses their references, &c.,—accounts asked for—memoranda of wants—Obstetric engagements—Vaccination engagements—General memo anda, &c.

CLINICAL LECTURE.

Gleet and Gonorrhœa. By Frederick C. Skey, Esq., F.R.S., F.R.C.S. Surgeon to St. Bartholomew's Hospital.

(*Medical Circular.*)

Gentlemen,—I am going to day to make some observations on "Gleet" a very familiar subject; and because it is so has shared the fate of almost everything familiar—contempt. Now, on the other hand, because it is very common, I think it is very important; most important especially for all young beginners to understand thoroughly. When I say gleet, I include also its "other brother," gonorrhœa. Gleet is a disease, as I see it in hospital and private practice, susceptible of very fair treatment and care, and susceptible of very erroneous treatment. Gleet is not an incurable thing, if you go the right way about it. A very common error is to push your remedies too much,—indeed, far beyond the line where they continue to be useful. I know no surgical disease so over-treated as gleet is; it is managed on what I explained to you recently, as a mis-application of the term "inflammation," and on old routine, the result of that error. Gleet has nothing to do with active inflammation. The term "congestion" of vessels comes nearer to my idea of the disease. I am perfectly satisfied that gleet is the result

of a passive state of the vessels, or congestion, with effusion, rather than the result of active inflammation; in fact there is a local remora, a want of tone; and the primary thing, depend upon it, in treating gleet or gonorrhœa is to get up this tone, to strengthen the centre of the circulation, and by no manner or means to depress this centre! All depletion, purging, antimony, &c., are calculated, I believe, to deteriorate the blood rather than to improve it, or improve the general tone of the constitution in any round-about manner. In hospitals I have no doubt at all on this point. Some very eminent men of the present day* are of opinion that the type of diseases has changed of late years, and that you cannot bleed at all now in cases where it was formerly the rule to do so: this is a very broad question, but it would lead me from the subject of "Gleet," to follow it further to-day.

What is gleet? Who shall define it, or its next-door neighbour, gonorrhœa? As I merely propose in these clinical lectures to throw out some hints—some materials for you to think about as you go through the wards,—I am abrupt on purpose. Gleet is derived from local as well as constitutional causes. Nothing is more common (if we revert to the history of the disease) than for a man after a certain lapsus with one of the other sex, to have gleety discharge; if we now add to this, as we ought, that he is dissipated and careless (as nine out of ten such men are)—if he drinks and smokes, and takes a great deal of exercise,—if he continues drinking, especially, and eating very little, and losing tone, nothing is more common, I say, than for this gleet to run on into gonorrhœa. Tell me where one begins and the other ends? You can't; I wish you could. You will say, as many young men going up to College do, that one (gleet) is a sero-purulent disease, the other (gonorrhœa) is a purulent disease. I don't believe, however, that they are two diseases at all, but one. (The effusion into the pleura in pleurisy is serous; tap it, and the next is sero-purulent: do you call it two diseases?) Cure the gleet and you'll have no gonorrhœa—cure the gonorrhœa and you'll have no gleet!

Now, as to the practical part of the matter—a few words as to treatment. We will take a typical case, with ardor urinæ, painful erection, and all the rest of it; nay, we will say there is slight fever, but I deny the stereotyped "inflammation of the mucous membrane of the urethra," &c. How is it to be treated? One surgeon gives calomel and jalap, cubebs and balsam *ad infinitum*, as we see the cases in St.

* See the remarkable and still unsettled controversy this year between Professor Bennett and Dr. Alison, of Edinburgh, on this point. But rash opinions of such "fallacies," without facts, can be of little use.

Bartholomew's, in the out-patients' department, literally in hundreds; calomel and jalap modulating the tune into the key of gamboge, black draught, jalap and balsam. Oh, that sorrowful black draught, "senna and what purgative drug"* to purge these humours out. Calomel, jalap, gamboge, black draught—there's a catalogue black indeed! I do not here draw at all on my fancy; ask the patients themselves—there lives are nearly drenched out of them, often by persons who are not medical men at all. Then, on the second day following the first visit to the chemist, or to his apprentice, the patient is ordered to come again, and he has more purgatives, a strong seidlitz powder, blue pill, &c., perhaps to get a full action of the bowels, already exhausted; he is usually ordered also cooling medicines. Then as to diet—I look upon it as perfectly monstrous. I hold it, that gleet if let alone for ten days will get well, especially if the man keeps up the tone of his system. Many of the patients with whom I have to do in the better walks of life have their pint of wine a day at dinner, their ordinary meat twice a day, at least, and perhaps a glass or two of ale, especially with their luncheon or supper. I am not quite sure that a glass of brandy and water is not often taken, involuntarily also to be sure, with that odious pipe of tobacco, out in the garden or up in the attic. We have these young men, sons of bankers, young barristers, rich shopkeepers' sons, &c., all living very well, but let any one of them contract a gleet—for I look on gleet as the essential disease, not gonorrhœa—then, forthwith, water gruel and water diet, with starvation, are added to the purgatives. The discharge continues, more profuse than before; at the end of three weeks, there it is still; at the end of six weeks, yes, there it is; but it is now changed—it is now less sero-purulent, and more purulent; two and three months elapse, there is the discharge. But now the patient is ordered turpentine, or balsam, or a half-drachm of cubebs, ter in die; or copaibæ guttae, xl., with injections of the sulphas zinci, gr. iv., in an ounce of water (a sort of caustic application); or it may be, all these are changed for sulphate of copper or sulphate of alum. Now this is what I meet with every week; it is the old plan of the new books, but I believe it to be very bad treatment indeed—about the worst that rational men could adopt. I would beg of each of you, as you are getting into practice, to act honestly to your patients, and avoid antiquated routine *in a new shape*.

Now, what is gleet? You perceive I repeat the question that we left only half answered. Well, my answer is that in gleet the exhalants of the urethra pour out an abnormal amount of fluid from a specific exciting cause, and we have—I wish you to remember the phrase—a dropsical condition, or dropsy of the urethra!

* Macbeth.

All that is written of the power of inoculating gonorrhœa or gleet comes to nothing, though books are filled with such things. What is gleet and its cure? that is the practical point—don't tell me of your gonorrheal inoculations as cures or gonorrheal chancres. Gleet, if let alone, will probably cure itself, but by the plan of treatment I have sketched, so much in favour with patients themselves, and with those men of the spermatorrhœa chemists' shops who delude the public, it will go on for four months or five months. I have known it to go on even longer than this—but see what you are doing, and what the scientific surgeon must avoid; you begin by destroying your patient's stamina—he is confined so many weeks to his room perhaps, if he is such a fool as to stop there—you administer purgatives, you wind up the clock, and set the liver in order, &c.; but the old purgative system is on its last legs depend upon it. How much has it to answer for?—it belonged to the school of Cullen; he it was that introduced it, but it is gone. If you had let this man with gleet alone, he would get well. Four or six grains of sulphate of zinc to an ounce of water, acting like a foreign body, has been injected into his urethra, at a time that copaibæ and cubebs have been passing out in his urine; he is weakened by purgatives. You attack him right, left, and centre with physic and you add irritation to irritation—is that the way to cure him?

I meet cases of gleet nine or ten weeks old, ay, in dozens! they come to me with a long story of all they have been doing—purgatives, balsam, mixtures, nitrate of silver injections, &c.; now I have used all sorts of things myself, led by the old routine. I have given as much as six or eight grains of the zinc to an ounce of water, but I found that I failed by my very eagerness to effect a cure, you will cure the patient to day, so to say, but he will come back as bad as ever in a day or two again. If you use an injection of six or eight grains, as I have just specified, the vessels suddenly contract; but so sure have you "reaction" and all your old troubles back again.

This "law of reaction" is no new thing in surgery—take two boys with warts on their fingers, and some of these warts are not much different, in microscopic structure, from other warty and some cancer growths. One boy has his wart scientifically excised, or rubbed with nitrate of silver, it is gone, but in a few days it comes back again, and is almost rendered perpetual by this process of pruning and nitrate of silver stimulants. The other boy cuts off his wart, and applies a mild milky juice of a plant celebrated for these cures; I cannot give you the botanical name of the plant, some of our learned Thebans doubtless can. Well! what is the result, the milky juice cures the wart entirely and effectually. The nitrate of silver encourages it to grow! I believe that in one case the

mild efficient action of the milky juice, "papaveraceæ," or dandelionaceæ, or whatever "aceæ" you please, gradually obliterates the little vessels of the part (we know lactic acid will obliterate larger vessels). Nature works with very simple agents sometimes. In one case, I say, the mild but efficient action of the milky vegetable juice blocks up and obliterates the vessels; in the other case, the vessels recoil,—say as the iris shuts out the stimulus of too much light, or the glottis expels foreign bodies, so it is in our stimuli applied to the delicate membrane of the urethra. Our strong injections, ℥j sulph. zinci to ℥viij of water do mischief.

The most effectual remedy for this class of cases, gleet, gonorrhœa, &c., that I know is half a grain of sulphate of zinc to an ounce of rose water. There is no "recoil" of the smaller vessels no discomfort to the patient, he must be desired to use it five times a-day, but above everything else, keep up his system by tonics, and banish purgatives, antimony, &c.

Order your patient an eight ounce lotion of this kind, containing four grains of the sulphate, no more, and let him have, internally, the tinctura ferri or ferrocitrate of quinine, *ad libitum*—do not alter his diet, except it happen to be egregiously faulty in some way; or you may give five drops of the balsam copaibæ, but do not give it in large doses—the larger the dose the more mischief it does. Gleet or gonorrhœa is not a trifling disease, remember either of them may leave a stricture, and a stricture may lead sooner or later to the utmost misery, if not death, of your patient.

If you would "build up" power, you would cure gleet or gonorrhœa in half the time usually wasted in making it worse, that is my chief position—strengthen the centre of the circulation. I will give you a case. A young man, a farmer from Wiltshire, a highly respectable man, came up to town to a cattle show, and contracted a gonorrhœa; he was "unfaithful to his wife without being aware of it," as some one says in a play of Wycherley's or Beaumont and Fletcher's. This, in a word, was the history that one could extract from him.

He appeared quite sheepish and puzzled about it, but half suspected he had gone where he ought not. He was most excited and anxious to get well, he would not for the world the doctor or his wife in Wiltshire got a hint of it—well, I cured him in two days. If I had gone the old way about it, he would still have had it at the end of two months, with what amount of family feuds I shall not strive to imagine. Here's another case:—A young gentleman going to be married, got overtaken by the ceremony being required to be done sooner than he expected. I need not go into particulars, but he called on me with a rattling gonorrhœa one morning, and he was to be married that day in the ensuing week!

what was to be done? He had gone through a pilgrimage of the old routine remedies, I gave him twelve grains ferrocitrate of quinine ter in die, and told him all would be right, but to use the mild injection most religiously. He got perfectly well in a week, and the nuptial knot was tied—this was before the passing of the "divorce bill," but, if he had not changed his old routine treatment he certainly could not have got married.

In conclusion, I would say, avoid depletion and purgatives—don't interfere with your patient's wine or beer; as for the *prima via* and all that sort of thing, for God's sake leave the liver alone, and trust with confidence to tonics and mild injections!

THERAPEUTICAL RECORD.

The Devil Plaster.—Much used by an old surgeon of Morello and his sons, for the cure of wounds without loss of substance, the composition of which they kept secret, is now published to the world by M. Escoribuela. He learned the secret from one of the heirs. It is as follows: Black pitch and dry rosin, aa. 180 gram.; powdered earth worms, 30; crude alum, 4; essential oil of turpentine, 98; mixed well. Several cases of severe wounds are reported cicatrized without suppuration by this plaster after 17 or more days. Even fractures and tumours were treated with success by it.

Diseases of the Skin treated by Borax and Sulphur.—C. Ballu recommends highly the following prescription. Balsamic lard, 400 gramm.; oil of sweet almonds, 24; spermaceti, 32; borax, 30; sulphur, 20; essence of citron, 10 drops. M. Good for Eczema, Prurigo, &c.

Lilac leaves as a Febrifuge.—M. Macario having been induced to try these in intermittent fever, owing to a popular reputation they had acquired in Flanders, found that of twenty cases, thirteen were entirely successful, and seven failed. In some of the former, quinine or arsenic had failed. A decoction of the leaves was administered fasting, during five or six days in succession.—*Rec. Méd., and Peninsular Jour. of Med.*

Sesquichloride of Iron in Hæmorrhages.—Dr. Herzfelder quite confirms the good accounts of this given by the French practitioners, as a most valuable agent in various kinds of internal hæmorrhage, and far superior to ice, alum, tannin, etc. He dissolves a scruple in 4 ounces of water, and gives a spoonful every quarter or half hour. Dr. Raith confirming this account, and especially as regards uterine hemorrhages, prefers the tinct. ferri sesquichl., as the watery solution is very nauseous.—*Dr. Lee's Report and Nashville Jour. of Med. and Surg.*

Eggs for burns.—The white of an egg has proved of late the most efficacious remedy for burns. Seven or eight successive applications of this substance soothe the pain and effectually exclude the burning parts from the air. This simple remedy seems to us far preferable to collodion, or even cotton.

Chloroform liniment in burns.—M. Bargiacchi states that he has found the extreme suffering produced in bad burns completely relieved by means of a liniment composed of chloroform and cod-liver oil.

Lime in the eye.—If quicklime gets into the eye, so as to darken the cornea by the lime penetrating the coating itself, the best remedy is water saturated with sugar.

Eczema of the nares.—In pruriginous eczema of the nares, M. Trosseau employs with great advantage subnitrate of bismuth mixed up with mucilage of quince seeds into a paplike consistency.—*Journal de Chimie Méd.*

Glycerine caustic in lupus.—Professor Hebra, of Vienna, employs the following formula: "Iodine, 4; iodide of potassium, 4; and glycerine, 8 parts. It is applied on alternate days by means of a pencil. It causes pain for more than two hours, but it possesses the advantage of curing the lupus without giving rise to deforming cicatrices.

PERISCOPE.

Removal of the Toe-Nail.—"Of the minor operations of surgery, few, if any, are more repulsive to the patient, as well as the Surgeon, than the old fashioned plan of *digging* an eyeball from its socket, or the varied proceedings adopted for removing an offensive toe-nail. To my colleague, Mr Critchett, the Profession is indebted for the substitution of a comparatively unobjectionable operation—as far as the operator is concerned—for the former exigency; one as free from difficulties as from repulsiveness, and as satisfactory to the patient as any operation can be, which has for its object the removal of a useless and tormenting organ.

What can be more horrifying to a man endowed with common sympathy, than to see a nail dragged upwards to its roots? The agony inflicted, the violence to the subjacent structures, the hæmorrhage, and subsequent suffering, all demand some more tolerable procedure. Hence, some have proposed amputation even, rather than practise the ordinary operation, or have dissected away the ungual matrix, or removed the nail by caustic; and in a case of incurved toe-nail, I have witnessed the summary proceeding of cutting away the offending nail with a portion of the soft parts from the end of the toe, at once an effective and comparatively painless course. In cases in which the nail has become detached at the matrix, it is well known that when necessary it may easily be tilted forwards, producing comparatively little suffering, laceration or bleeding, and no glandular sympathy. For some years I have endeavoured to imitate this proceeding in the evulsion of the nail, on account of intractable ulcers or in-growing margin, by the following method:—If only part of the nail required to be removed, as for incurvation, I have divided it by

the point of a knife, and carefully passing one blade of a strong pair of dressing forceps under the nail, to the extent of one-third to one-half of an inch, and then firmly grasping it with the forceps, I have succeeded in dislodging it easily by a sudden jerk forwards and upwards.

Some years ago, the Senior Dispenser at the London Hospital consulted me on account of incurved great toe-nail. He had for some time cut away the margin of the nail till a fungus arose. He then allowed the nail to grow, and thinned it by scraping, so as to allow of its edge being raised by small compresses. This he found so painful that he was obliged to abandon the plan. I advised the hardening of the cuticle, by applying nitrate of silver, and allowing it to dry. This relieved him for some time; but the nail continuing to grow, buried itself in the soft parts at the extremity of the toe, and produced such pain, that I recommended him to have it removed. While under the influence of chloroform, I took away the piece in the mode above detailed. No irritation followed, and in a few days he resumed his active duties in the Dispensary. I believe he has had no further trouble from it.

For the purpose of removing the entire nail, I have had a pair of forceps made by Messrs. Weiss, resembling a strong tooth forceps in general outline, but the jaws slightly curved and roughened: the lower sharp at the point, and nail-shaped, concave-convex; the upper concave, to enable them accurately to seize a nail. By means of them I have succeeded in taking away nails without much difficulty. It is necessary to use considerable force, and unless the forceps are carefully made, they easily slip. In several instances the patients have been enabled to walk about within a day or two of the operation. One walked home from the Hospital, a distance of half a mile, immediately he recovered from the effects of the chloroform.

Some years ago I was consulted by a pupil of Dr. Jackson of Barnsley, on account of in-growing great toe-nail, which was causing very great inconvenience, and had resisted the usual treatment. I advised the evulsion of the nail, and an instrument was extemporised for the occasion by a smith in the town; a common pair of bell-hanger's pliers was adapted to the purpose by beating out the jaws to a sharp edge, so as to enable it to be passed under the nail. The patient was placed under the influence of chloroform, and the nail removed as easily as the imperfection of the forceps permitted, for, in the absence of teeth, the instrument slipped once or twice. Little inconvenience resulted from the injury inflicted, and he made a rapid recovery. On one occasion I operated on a patient without the anæsthetic, as he was unwilling to take chloroform; the man said that the pain was not so severe as to induce him on another occasion to shrink from his determination, and was far less than he had been led to expect.

In the majority of the cases of inverted margin, which have fallen to my care, I have lately adopted the plan of complete evulsion, and found the recovery more rapid, and with less tendency to relapse, than when only part of the nail had been removed: for under the latter circumstances, the parts often granulate above the surface, and produce the original fungus anew. But by removing the whole nail, no unequal support occurs; the nail is reproduced on a better type, and the raw surface can be hardened by nitrate of silver to form quite an artificial nail, and enable the patient to walk without inconvenience."—*Medical Circular.*

On Fatty degenerations with Phthisis.—The 'Lancet' gives the following extract:—"It must not be thought,' observed the late Mr. Barlow, 'that this question of the complication of phthisis by degeneration has no practical interest. The fatty heart, when once produced, is a grave addition to a complaint not needing it, and may lead even to sudden death. Not long ago, I examined a man far advanced in consumption, who, having a severely degenerated heart, turned suddenly pale, and fell dead upon the floor. There was no act of dying; he was instantly dead. M. Louis, in his great work on Phthisis, has a chapter on 'cases of unexpected death, which are not explicable by the condition of the organs,' and describes the case of a woman who died suddenly to the great surprise of the occupants of the neighbouring beds.' 'The heart was somewhat soft' and there is no great boldness in conjecturing that it had undergone fatty conversion. M. Louis remarks—'No doubt, in this case, the amount of disease in the lungs was considerable; but a fair portion of those organs was still permeable to the air and respiration performed with regularity a few minutes before death. Between that time and the moment at which life suddenly ceased, no change, at least of an appreciable kind, appears to have been effected in those organs. How, then, can we explain the unexpected death? It is justifiable to compare the viscera with the locomotive muscles, and admit that under certain circumstances they become suddenly incapable of performing their functions, from a kind of fatigue?'

The following observations of Dr. Christison may appositely succeed to the question propounded by Louis:—'Diseases of the heart often exist for a long time without a single symptom to attract the attention of the patient or his friends, and often prove instantly fatal without a single precursory warning. Nothing can exceed the irregularity of the circumstances in which such diseases prove fatal. Not only may one man sustain, without inconvenience, an amount of organic injury which cuts short the life of another; not only may one suffer long and cruelly from the same affection in kind as well as degree which kills another without a moment's

previous sufferings; but, likewise, one person may die of a limited extent, or degree of a disorder, which in another reaches an extraordinary height without giving a single indication of its presence. It is almost unnecessary to illustrate, by examples, statements so familiar to all practitioners: A case is related by Dr Semple of a medical man who died at the age of seventy-one, and in whom there existed valvular murmur with fatty degeneration of the heart. The author observes:—'The muscular fibres of the heart, which exhibited no morbid appearances to the naked eye, were examined by the microscope separately by myself, and by two practised microscopical observers. We all concurred in discovering fatty degeneration of the heart—numerous minute oil-globules being detected in the muscular tissue, and the transverse striæ of the fibres being in many cases obliterated, and their place being filled by oil-globules. In this case,' continues Dr Semple, 'there can be no doubt that very serious disease of the heart existed, and had, probably existed for a long period before death. Yet it is a curious circumstance that although fatty degeneration was naturally suspected, no symptom which could be referred to that lesion was ever detected during life, nor could it be said that death was accelerated by that circumstance (?) We are naturally led to ask whether, although the microscopic appearances of fatty degeneration are well-marked, and now well known, it is after all a matter of great pathological importance? When persons have died suddenly, and no obvious cause of death has been discovered, the microscopical evidence of fatty degeneration has often been adduced to account for the catastrophe; but I doubt very much whether death is due to this cause. I apprehend that the examination of many persons who have died of other than cardiac disease would prove the existence of fatty degeneration of that organ; while, on the other hand, no trace of such a lesion can be discovered in many cases of sudden death. The existence of fatty degeneration of muscles, consisting in the development of minute oil-globules in their fibrillæ, is, no doubt, one of the most interesting discoveries of modern days; but the connexion of this degeneration with the functions of the heart and the symptoms which indicate it during life, are subjects which require careful investigation.'

In writing of the 'fatty heart,' Hasse observes: 'This morbid state, so far from being local, as some pathologists believe, is the result of various affections in other organs: and though not manifested by any specific local symptoms, its presence may nevertheless be inferred with tolerable certainty from collective symptoms referable to other parts of the body. Thus, in functional disturbance of the larger organs of secretion, and especially those engaged in the elaboration of venous blood, we meet with fatty encumbrance of the heart in its second stage; the abnormal condi

tion being then conjoined with other changes, all dependent, more or less directly, upon hepatic or pulmonary disease, or, at any rate, indicative of venous plethora. In thirteen cases of fatty degeneration of the muscular substance in its second stage, I found, upon cadaveric inspection, the liver invariably diseased—being six times in the granular and thrice in the fatty state. In seven cases there was deposition, more or less considerable, of blackened masses (cicatrized tubercular cavities); and in four, actual tubercles in the lungs; in eight cases, hæmorrhoidal and vesical phlebectatis: in three, varicose veins of the leg.'

To return, however, to the co-existence of the arcus senilis with phthisis; and in doing so I shall again quote from the work of Mr. Barlow,—a work replete with valuable information, well stored with facts, and highly suggestive on the subject of fatty degeneration:—'That phthisis should lead to fatty degeneration of the heart can give no surprise; it runs often a slow and tedious course, while the emaciation which shows the skeleton in outline is but too common. The observations of Louis on the softening of the tissues in cases of this affection must be well considered in reference to fatty degeneration. What he says of the fatty liver, the softened brain, the atheromatous aorta, and the condition of the heart, is of great interest; but the observations should be repeated with all the help the microscope can furnish..... It would be very important to examine carefully the softened brains which occasionally occur in phthisical patients, with the view of detecting fatty degeneration of the small blood-vessels. The other day I visited a man, aged forty, who was dying of consumption; he had an arcus senilis and hemiplegia. His body was not examined, and it remains uncertain whether his paralysis were due to the presence of tubercle, or fatty degeneration, or some other cause.'"

Case of Rheumatic Paralysis.—The patient was a man, E. S., aged thirty-two, married, living at Wellingborough, in a somewhat damp house, but in a very healthy situation. He was by trade a shoemaker, and up to January 1856, had always, with slight intermissions, enjoyed good health. On the 16th of that month, he was attacked with severe pain in the bowels, which were tender and constipated; but he was soon relieved by purgatives, combined with calomel and opium.

On February 3rd, he began to complain of acute pain in the left shoulder and elbow-joints, accompanied by heat, thirst, and restlessness. On the second day, the pain extended to the left arm, then to both hands and wrist-joints, which were slightly swollen. In about a week or ten days the severity of the symptoms had in some degree ceased, but then, the pain was felt extending down the back to the hips, knees, and ankles. Again, the febrile symptoms were renewed; the tongue became furred,

the pulse quick, the urine scanty, and with bright red deposit, the breathing rapid and jerking; and he had occasional delirium. This state continued for six weeks. The treatment consisted of antimony, opium, and small doses of calomel; afterwards, when the lower limbs became affected, colchicum with bicarbonate of potash was added to the other remedies with marked benefit. The febrile symptoms gradually subsided but unfortunately left the patient weak and incapable of the slightest movement. Paralysis seemed complete in all the voluntary muscles; but the patient retained his power over the rectum and bladder. Week after week now passed with no amendment; blisters and other irritants were applied to the spine; the patient took quinine, ammonia, iron, iodide of potassium, and zinc, in succession, and had the continued daily use of electro-galvanism up to June 21st. At this time, he had only so far recovered as to be able to move his neck freely, the right arm stiffly, and in some degree the fingers of the right hand. At this date, he was carefully conveyed to the Northampton Infirmary, and there most assiduously attended by Dr. Webster (who took a great interest in the case) for four months, but returned with his paralytic symptoms unalleviated.

At the present time (May 21st, 1857), more than fifteen months from the commencement of the attack, his health is good; he eats and drinks well; indeed, he gets fat and looks cheerful; he can move his head in all directions; he has the power when in bed of rolling from the left side on to his back, which is a great relief; he can move the right arm, but the hand is drawn back and incapable of much flexion; with difficulty he can grasp a fork, but is unable to feed himself. The left arm lies by his side useless; nor can the hand be flexed or brought up to the head. The right leg he can move freely when lying on the left side, but cannot draw it upwards. The left leg is useless. There is no swelling in any of the joints. He has no difficulty in passing either urine or fæces; the former is of healthy character and sufficient quantity. The bowels are generally moved once a day.

He has never had any loss of feeling; and has rather an exquisite sensitiveness to the least touch throughout the whole body.

Remarks.—There is no novelty in rheumatic paralysis; and the present case was introduced to the attention of the meeting for the purpose of inviting discussion as to the nature and causes of paralysis in rheumatic fever. It was also desired to educe the practical experience of those members who had met with cases similar to that of my unfortunate patient; and to ascertain if any plan of treatment had been devised for alleviating so great a calamity. It was suggested that a general long continued use of the iodide of potassium was an important, and frequently a successful remedy; as was also the frequent application of blisters to

the spine, combined with attention to the state of the health generally. These remedies, as well as others mentioned above, had been fairly tried, and, I am sorry to say, had utterly failed.—*Idem.*

On the Treatment of Internal Hæmorrhoids.—Mr. Hamilton.—In France some surgeons prefer to destroy the hæmorrhoids by caustics, and different instruments are used by them for the purpose. M. Le Dr. Alphouse Amussat effects the application of the caustic of Filhos to the root of the hæmorrhoid by a very ingenious forceps, the invention of his father, or one with a modification of his own.

The transverse arms of the branches of the forceps, which seize the pile at its base, have grooves in them that hold the caustic, which previously to the application is covered by a slide. When the pile is firmly compressed by the forceps and kept so by it, the slides are rotated back, and the uncovered caustic comes in contact with the sides of the base of the tumour. The application is continued from two to four minutes, and during this time constant irrigation of the part with cold water is kept up by an assistant, and is continued afterwards, to wash away any of the particles of caustic that might remain; or this is more effectually accomplished by acidulating the water with a little vinegar. To those, however, who do not posses this ingeniously contrived forceps, a simple mode of proceeding is recommended, viz, to seize the hæmorrhoidal tumour with the ordinary dressing or dissecting forceps, and cauterize it directly by applying to its centre a stick of Filhos's caustic pointed, and giving it a rotatory movement to penetrate the hæmorrhoid, so as to destroy it both centrally and laterally. The neighbouring parts should be protected with spatulæ, and the whole washed with acidulated water after the operation.

If you apply the caustic directly, you need not trouble yourselves to make Filhos's caustic, or the Vienna paste, as a stick of the common caustic potash is quite as good. A very simple but ingenious means for its safe application is this instrument, invented by M. Jobert de Lamballe.

This method of destroying prolapsing or bleeding hæmorrhoids by destructive caustics, ought to be safe and effectual. I have had little experience of it, but M. Amussat brings strong evidence in its favour.

A liquid caustic, which destroys much more superficially, the nitric acid, is a great favourite with many surgeons in Dublin, and some in London. Mr. Cusack was, I believe, the first to use it; but the late Mr. Houston has the merit of having called particular attention to it by the publication of a number of favorable cases in the 'Dublin Medical Journal.' Though successful in many instances, and even in very severe ones, yet I do not place much reliance on it in the majority of cases of aggravated internal hæmorrhoids, the relief being often only temporary, and when

much is attempted by a very free application of the strong acid, the effects are by no means so trifling as have been generally described—considerable inflammation of the lower end of the rectum and anus with œdematous swelling around the latter—hœmorrhage, from the acid causing a slough over a vein or artery—and severe pain, for many days after the application, of the surface burnt by the acid. The last effect was very troublesome in a case I saw with Dr Brady, of Harcourt street; the operation was effectual in a very aggravated case of prolapsing and bleeding piles, but the sufferings of the patient, from the raw surface left after the separation of some superficial sloughs, were extremely severe; from this raw surface also there may be more or less hæmorrhage.

The case is then given, and Mr Hamilton goes on to say:

A Roman Catholic clergyman, aged about fifty, suffers from internal hæmorrhoids, which come down at stool, and occasionally bleed; but what most inconveniences him is, that there is some prolapsus when he walks.

I found the anus lax, and a small red granular pile, like an elongated raspberry, projecting out through the anus; besides this, he says that after having walked some time, one from higher up, and of a dark colour, like a grape, comes down too.

He has laboured under the complaint for fifteen years, and been cured twice, for a time, by the application of nitric acid. The acid had been applied by a most experienced and excellent surgeon, and yet the effect had only been temporary.

But where the prolapsus and bleeding haemorrhoids are small, the nitric acid is a very safe and effectual remedy. There is a glass brush recommended for applying the acid. But you will find the common mode of application as good as any. A flat piece of wool, the size of a spatula, but a little narrower at the end, is to be wet with the strong acid and applied decidedly over the pile till its surface becomes greyish-white; a little oil is afterwards smeared over the part to prevent any free acid affecting the neighbouring parts. The chief things to be attended to are, not to take up too much acid with the stick, lest it drop over other parts, and secondly to apply it effectually. Some inflammation, heat, and throbbing follow the application, and after the second day, there is often blood in the stools. This, in favourable cases, gradually disappears as the ulcer formed by the acid heals, and the inflammation having consolidated the walls of the rectum, the internal piles cease to come down.

Now, let me remind you, that all these cauterizing agents have been proposed as safer modes of curing prolapsing and bleeding piles, than the two other operations of excision and the ligature. That they are safer than excision there can be little doubt; indeed, I wonder any one can be

found bold enough to cut off internal piles, when we have the evidence of so many lives sacrificed by it. Dupuytren, an advocate for excision, was yet so aware of the danger of hæmorrhage, that he always left an assistant at the bed-side, to apply the actual cautery to the bleeding vessel in case it came on—rather a terrible addition to any operation. Sir A. Cooper lost some patients by this operation, and abandoned it in consequence.

Sir P. Crampton mentioned to me that early in life he had nearly lost a lady from hæmorrhage, after excision. As he could not get at the bleeding vessel to tie it, he had to keep his finger, and after he was tired, that of an assistant, on the vessel, up the anus, for several hours.

The following case conveys a good warning of the extreme danger of this operation: I was asked to see, in all haste, a man who was bleeding after having been operated on for piles by excision. He had suffered for a long time from internal piles which came down at stool and bled freely. One of these piles had been cut off an hour before, and as the young man who was staying with him observed him to pass large quantities of blood in the *pot de chambre*, and to be getting very weak, he became alarmed, and the gentleman who had operated not being procurable, he had sent for me. I found the man blanched, and so weak that when I told him to get on the pot, and strain, he was barely able to do so. He passed about half a pint of nearly pure blood, partly clots, and partly fluid; the bowels did not come down, therefore the vessel from which all this blood was coming was not visible. I introduced a gorget to enable me to find it, when it appeared high up above the internal sphincter, and was pouring out red blood per saltum forcibly, running up into the bowel, and out at the anus. This view was obtained with great difficulty, from his unsteadiness and being inclined to fall forwards from weakness, and the rapid flow of blood obscuring everything; indeed I never saw more furious bleeding from so small a source, and I am sure in another quarter of an hour, he would have been dead. I took up the vessel with a tenaculum, and luckily the looseness of the parts allowed it to be dragged down, so that a ligature could be properly applied to it. The hæmorrhage was stopped, and with the exception of palpitation of the heart, he got well without any symptoms.—*Dublin Hospital Gazette.*

Observations on Peruvian Bark.—By T. R. Spence, M. D., practical Pharmaceutist.—The great value, and superiority, of the salts of Quinia, in the treatment of acute diseases of malarious origin, has tended to withdraw attention somewhat, from the pharmaceutical preparations of Cinchona which represent the several active principles it contains, in their natural state of combination.

When the desired impression is immediate and energetic, as in the interruption of the paroxysms of intermittent fever, quinine is undoubtedly superior to all other forms whatever; but where the object is to prevent the recurrence of fever, or, in the treatment of neuralgia, anemia, or general debility, there are often good reasons for giving preference to some of the preparations alluded to above, and this will be particularly the case, where long continuance of the medicine is desirable, as the functions of the stomach and bowels are in general less deranged than in a similar use of the alkaloid.

The nomenclature of the varieties of Cinchona is governed chiefly by the color, and the name of the district where originally obtained. No classification based on scientific principles, has yet succeeded, although various attempts have been made to accomplish that end.

There are three principal kinds, thus distinguished in commerce and recognised by the Pharmacopœia. The yellow, or calisaya, the red, and the pale, or loxa. There are also the Carthagena barks, derived from the more northern ports, of inferior value, but which are sold extensively for the other varieties.

The true calisaya yellow, is produced principally in the Bolivian district of La Paz, and exported usually from the port of Arica, Peru. It occurs in quills and flat pieces of variable size, and has a distinct and characteristic appearance. Quinia exists in greater, and Cinchonia in less proportion, than in any other bark, and with these are associated the other active constituents, quinoidine, cinchonia red, kinic, and tannic acids.

As there can be little doubt, that the salts of quinine are more efficient than those of cinchonine, there is, I think, good reason to believe that this is the best variety that can be obtained. As it is used extensively in the manufacture of quinine, it is in demand for that purpose, and extreme care consequently is requisite in purchasing, or a fictitious article may be secured.

The true red bark is imported in chests from Guayaquil and Lima, and also appears in quills and flat pieces, though usually of less size than the former. It is particularly distinguished by its deep red color, either whole or in powder. Considerable quantities of quinia and cinchonia are found to exist with other principles, and it is a valuable variety, especially for the general purposes of a tonic.

The pale, or loxa, is or was exported from Loxa and Lima, and is supposed to be the first introduced into Europe, there known as crown bark. There is no doubt this was a very superior article, quite equal at least to any since known, and selected with great care for the Spanish market. No reliance, however, can now be placed on the pale bark of

commerce, being very cheap, and generally inert and worthless. It is sold to a great extent for the yellow, which can only be obtained from commercial sources by adding the term calisaya to it.

From considerable observation, I am convinced that a large proportion of the bark used consists of this, and other fictitious varieties, often honestly supposed to be genuine, and it is not surprising that confidence has been lost in preparations made from such material.

The officinal forms of Cinchona in general use, are the infusion, decoction, tincture, and compound tincture (Huxham).

The tincture represents three ounces of bark to one pint, and is a useful addition to other mixtures, but from the entire absence of aromatics, is not so pleasantly administered alone.

The compound tincture has a little more than one and a half ounces to a pint, with the addition of orange peel, Virginia snake root, red sanders, and saffron. It is a valuable preparation, having a wide range of application, and is particularly adapted to low and typhoid states of the system.

There have been several proposed ferrated tinctures of bark; the following from Parrish's Practical Pharmacy, constitutes one of the most eligible:

	" *Tinct.*	*Cinchon.*	*Ferrat.*
R.	Tinct. Cinch.	comp.	four ounces,
	Ferri Citratis,		one drachm,
	Acidi Citrici,		fifteen grains.

Triturate the citric acid and citrate of iron together, and dissolve in the tincture of cinchona.

The dose is a teaspoonful, containing two grains of citrate of iron."

Considerable attention of late has been given by pharmaceutists, to the fluid extract of bark and several formulas have been published. I propose the following process, which produces an elegant and efficient preparation.

Fluid Extract of Cinchona.

Take Calisaya Bark, coarsely powdered,—four lbs. avoird.
Dilute Alcohol,—eight pints.

Macerate the bark with a portion of the alcohol, in a closed vessel, kept in a hot water bath for 24 hours. Transfer to a displacing apparatus, pour on the remainder of the menstruum and pass it slowly through twice. Continue the displacement, with dilute alcohol, until completely exhausted, and remove the first quantity (eight pints), when recovered. Evaporate this, by means of a water-bath, to six pints, and the second quantity, in like manner, to four pints, and add together. Allow it to remain quiet for about two days—decant and filter, and dissolve in it.

Refined Sugar—four lbs. avoird.

Collect the precipitate of cinchona red, and resinous matter, and dissolve it in.

Alcohol—one pint—

which is to be added to the extract gradually, with agitation. I recover the alcohol used by distillation, which is an important consideration, in an economical point of view, though not at all essential to the process.

It will be readily seen, that the first portion of the tincture must be exceedingly rich, in the soluble principles of the bark, and that the slight amount of heat required in the evaporation, cannot deteriorate it in the least.

The tincture which follows, secures the complete exhaustion, and containing much less of the extractive matter, can be evaporated more safely.

The precipitate of cinchona red, and resinous matter, which is discarded in most formulas, or only partially incorporated, is of particular importance; and the presence of the small amount of alcohol renders less sugar necessary for preservation than would otherwise be the case.

Each fluid-ounce will represent one half an ounce of the crude material (which is the proportion recognised in most of the formulas I have seen); medium dose, one drachm.

The fluid extract is advantageously used, also, in the preparation of the infusions, decoctions,—and in addition to other mixtures.

The following articles I have manufactured for some time, and they have met with favorable reception from many:—

Tincture of Calisaya—Aromatic.

℞. Calisaya Bark, coarsely powdered,—1 lb avoird.
Ceylon Cinnamon, " "
Cardamom Seeds, " "
Jamaica Ginger, " " of each 1½ drachms.
Purest Deodorized Spirits—five pints.

Macerate and displace, and add—

Sherry wine—two pints.
Tincture Angelica—one fluid drachm.
Simple Syrup—one pint.

Allow it to stand a few days, decant and filter

Dose—one half to one table spoonful.

This is an efficient preparation, and pleasantly taken.

Wine of Peruvian Bark.

℞ True Red, or Calisaya Bark, well bruised,—six oz
Sherry Wine—four pints.

Macerate, displace, and after standing a few days, decant and filter.

Dose—one half to one wine-glassful.

It may be sweetened to suit the taste, when taken. This was intended as a substitute for the wine and bark so frequently used, and possesses the advantages of elegant appearance, with equal and determinate strength.

164 Woodward Ave, Detroit.—*American Druggists Gazette.*

Non Congenital Talipes Valgus.—Treatment. The complete and permanent cure of congenital valgus can only be accomplished by a combination of the same general principles of treatment, including the operative, mechanical and physiological means, which I have described as necessary to the successful treatment of congenital varus and other deformities. I have already stated that the tendons requiring division in valgus vary very much according to the severity of the case. In slight cases, division of the peronei and extensor longus tendons may be sufficient; but the tendo-Achillis frequently requires division; and in severe cases it will also be necessary to divide the tendons of the tibialis anticus and extensor pollicis muscles. In the latter class of cases, and in some of less severity, it is advisable to divide the treatment into two stages, as in varus; the object of the first stage being to overcome the eversion, transverse rotation, and bending upwards of the anterior portion of the foot—to bring the foot on a straight line with the legs and, when contraction of the tendo-Achillis exists, to convert the valgus into simple equinus;—and the object of the second stage being to obtain the natural extent of flexion at the ankle-joint, when this is limited by contraction of the tendo-Achillis.

Mode of performing these operations.—I have previously mentioned that at the Orthopædic Hospital we devide all tendons from below upwards, cutting towards the skin. The tendons of the extensor longus and other extensor muscles, which, it must be remembered, are the direct flexors of the tarsus upon the leg, should be divided as they cross in front of the ankle-joint, where they are usually prominent and tense, when requiring division. To divide the extensor longus and peroneus tertius, the puncture should be made close to the inner border of the extensor longus tendon, and the sharp-pointed teno-tome passed behind the tendons. When all the anterior tendons require division, this is also the best position for the puncture; because, after dividing the extensor longus, the knife can be re-entered from the same puncture passed beneath the extensor pollicis and anterior tibial tendons, without any risk of wounding the anterior tibial artery, if the point of the knife be kept close to the tendons.

Immediately after dividing the tendons, a pledget of lint should be applied, and held in position by a strip of adhesive plaster. The foot should then be bandaged to a splint placed in front of the leg and foot, and a little bent at the ankle-joint. It should be left quietly in this position till the third or fourth day, when the lint and plaster may be removed, the foot bandaged, and whatever apparatus it may be thought advisable to make use of applied.

Mechanical Treatment.—There are three forms of apparatus which you will find useful in the mechanical treatment of congenital valgus, either as adapted to cases of different degrees of severity, or to the different stages of treatment, where it is thought necessary that this should be divided into two stages, as above explained.

1. In the slight cases in which there is no contraction of the tendo-Achillis, or in which this tendon is but slightly contracted, so that it may be divided at the same time as the tendons in front of the ankle-joint, the ordinary *Scarpa's shoe*, with two cog-wheels at the ankle-joint, may be used; or rather I would recommend you the modification of the *Scarpa's shoe* in which Langard's arrangement of the cog-wheels is adopted, viz, placing the cog-wheel which alters the plane of the sole of the foot behind the ankle-joint, instead of at the side. The advantages of this arrangement, which I have already adverted to when speaking of varus, are very great, and I now employ it in all cases where it is necessary to have a double action. In valgus this arrangement is particularly useful, as it enables you to overcome the rotation of the anterior portion of the foot from the transverse tarsal joint.

If the *Scarpa's shoe* be employed, it is only necessary to remark that the horizontal side-spring must be on the inner side instead of the outer, as in varus.

A *Scarpa's shoe* made for the right foot in varus answers very well for the left foot in a case of valgus. A leather pad must be attached to the side-spring, so as to correspond to the normal position of the arch of the foot which it is intended to support, or rather to form, by acting as a fulcrum in this situation while the metatarsal bones are being drawn downwards and inwards by the toe-strap attached to the side-spring.

In cases in which it is thought desirable to divide the treatment into two stages, the Scarpa's shoe is the best apparatus you can employ in the second stage, viz, that of curing the equinus.

2. In severe cases, in which the tendo-Achillis is either elongated, so that the deformity may by some be regarded as calcaneo-valgus; or in the opposite condition, in which this tendon is so much contracted that it is necessary to divide the treatment into two stages, I recommend you to employ a straight splint, made of thin iron, and well padded, applied to

the inner side of the leg, with a spring connected with its lower extremity, and passing along the inner border of the foot; a pad is connected with this spring, opposite to the navicular bone, and projects inwards and upwards in the normal direction of the arch of the foot; this forms a fulcrum, over which the foot is made to bend in a curved direction, inwards and downwards, so as to put the peronei and extensor muscles on the stretch, by means of a toe-strap, which connected, at one end with the spring, passes round the metatarsal bones, and draws the anterior portion of the foot towards the spring, with which the free extremity of the strap is then also attached by a buckle. In this apparatus, by which the most severe cases in infants may be cured, the arch of the foot is, as it were, moulded upon the pad attached to the side spring.

If this apparatus be employed for the first stage of the treatment, it is scarcely necessary to observe that the *Scarpa's shoe* must be employed for the second stage.

3. In the most severe cases of congenital valgus in children, and more especially when these cases are met with in youth, and at more advanced periods of life, I would recommend you to employ a modification of the apparatus to which I have affixed my name, and which I advised you to make use of in cases of congenital varus in the youth or the adult. The modification consists in placing the cog-wheels on the inner, instead of the outer side of the foot—only one instead of two cog-wheels with lateral action being employed—in adding a rotation cog-wheel corresponding to the transverse tarsal joint, for the purpose of controlling the rotation of the anterior portion of the foot from this joint, as a centre of motion; and in using a horizontal instead of oblique sole-plate.

By this apparatus you will obtain much more control over the severe cases than you can possibly command by the *Scarpa's shoe*, or the valgus splint with side-spring, already described, and it will answer equally well for both the first and second stages of the treatment.

"Physiological treatment.—As soon as the foot is restored to its natural position, passive exercise should be commenced, as in varus, with the object of bringing the muscles into play, and of obtaining a well-balanced state of muscular action, such as is essential to the preservation of the form of the foot in a healthy condition.

"After-treatment.—After the removal of the deformity, it will be necessary for the patient to wear some form of retentive apparatus, in order to allow all the structures,—bones, ligaments, and muscles,—to adapt themselves to the improved position of the foot, and to guard against relapse.

"In the day-time, walking exercise of course being permitted, the patient should wear a boot with a steel-support on the outside, carried up to the calf of the leg, and having a free-joint at the ankle; inside the boot a pad of vulcanised india-rubber should be placed so as to support the arch of the foot; and a leather strap attached to the inner side of the boot should pass across the ankle-joint, and be connected by a buckle with the steel-support on the outer side of the leg. This apparatus will hold the foot in its natural position during progression, and will effectually support the arch of the foot. It will be required to be worn for at least a twelve-month or more.

"It is also desirable that the patient should continue to wear some form of retentive apparatus at night-time for six months or more after the deformity has been cured. This may consist either of the Scarpa's shoe, or simply of a metal sole-plate, with a steel bar connected with it, and carried up to the calf of the leg, in imitation of the Scarpa's shoe, but without any cog-wheels, so that it may be very light and of little inconvenience."—*Medical Times Gazette.*

Therapeutic Employment of the Pyrophosphate of Iron.—We condense from the *American Journal of the Medical Sciences*, the following account of a new and valuable preparation of Iron:—

M. E. Robiquet read (Feb. 10th, 1857) an interesting memoir on this subject before the Imperial Academy of Medicine of France.

Industry has already derived great advantage from the property possessed by pyrophosphoric acid of combining with soda, and with gold or silver. In medicine, the pyrophosphate of iron has often been tried, and this might be expected, for oxide of iron undoubtedly reacts on the functions of the blood, and the elements of pyrophosphoric acid are found in the bones; but it has soon been given up on account of its liability to change, and of the great quantity of pyrophosphate of soda necessary to retain it in solution in water. It struck me that these inconveniences might be easily avoided without depriving the ferruginous salt of any of its essential properties.

In medicine the essential characters of a good preparation of iron are, that it shall readily dissolve in the fluids of the stomach without impairing their digestive functions, that it shall be completely assimilated in the system, and that it shall not act as an astringent. The pyrophosphate of iron possesses all these properties; its resistance to solvents is the sole difficulty which remains to be overcome to entitle it to the first rank among the preparations of iron.

The solution of pyrophosphate of iron in a citro-ammoniacal liquor keeps for whole months without undergoing any change, and yields to a

syrup free from the intolerable taste of ferruginous compounds. Potash, ammonia, and the alkaline carbonates, do not give, with pyrophosphate of iron so dissolved, the reaction peculiar to the salts of iron.

The process of solution being once found, nothing is easier than to transform the pyrophosphate of iron into comfits, syrup, or lozenges ; the latent state in which it exists in this new salt enables us to mix it with wine of bark, and to obtain from it a powerful tonic, without having to fear the blackish discoloration and inky taste which are always produced when a salt of iron is brought into contact with fluids more or less charged with tannin.

In whatever mode the citro-ammoniacal pyrophosphate of iron be administered, it has absolutely no taste, and patients not only bear it readily, but feel the best effects from its use. I have seen it particularly useful in well marked cases of anæmia, chlorosis, and chronic urethritis.

To recapitulate, the pyrophosphate of iron, chemically considered, is a polymorphous salt, in which the metallic atom is concealed from reagents ; it contains, by weight, 21.11 per cent. of iron. In a therapeutic point of view, the facility with which it is assimilated by the system, the absence of all styptic taste, its perfect solubility in water, the influences, finally, which it exercises on the composition of the bones and the functions of the blood, entitle it to the first rank among ferruginous compounds.

Formulæ. *Syrup of Iron.*—Pyrophosphate of iron, two and a half drachms; simple syrup, twenty-nine ounces; syrup of orange flowers, three ounces : make a syrup by simple solution, and color with a sufficient quantity of tincture of cochineal or alkanet. Each drachm of the syrup contains about six-tenths of a grain, and a tablespoonful, about three grains of the salt of iron.

Ferruginous Comfits.—Pyrophosphate of iron, one ounce and five drachms, divide into 500 comfits, each of which shall contain a grain and a half of the salt.

Ferruginous Wine of Bark.—Pyrophosphate of iron, two and a half drachms ; extract of pale bark, seventy-seven grains ; white wine, thirty two ounces ; to be made *secundum artem.*"—[*Jour. des Connaiss.*]

Longevity of Animals.—A writer (Mr. R. Evans,) in the Philadelphia Medical and Surgical Journal observes.

To begin with the higher order we take Man. Now suppose 100,000,000 of souls inhabit the world, and allow 30 years for a generation, the deaths for each year would be 30,000,000, of each day 82,153, of each hour 3,442 ; the number of deaths to the number of

births (excepting time of war) as 10 to 12, there are born every year 36,000,000, every day 900,569, every hour 4,107.

On this calculation, if man had not been doomed to die, there would be at present about 713,000 billions more on the earth, and yet a space remain of 9,110 square feet of earth for each.

For every 1,000 men 28 die off annually; of 200 children not more than one dies in the birth; of 100 one does not die during the mother's lying-in; of 1000 infants fed by means of mother's milk, not above 300 die—but of this number by wet nurses 500 annually; convulsion and teething kill the greater number.

It appears by the London Register, amongst 3,125 who die, there is but one person of 100 years.

The astonishing longevity of the Antideluvians has ever been a matter of surprise—it is conjectured by some that it has been caused by the difference in the chronology of those times—their year equalling our lunar month, but this appears to me incorrect, seeing as we are told, "That Man's days were shortened for his great wickedness."

There are recorded in Europe some instances of great longevity, Henry Jackson, a native of Yorkshire, who lived to 169 years; James Banks 152, Thomas Parr, Shropshire, 152; the Countess Desmond, Ireland, 140 years, with others.

The longevity of the lower order of animals is strikingly singular, and and to some may be interesting. The average life of the Elephant is from 150 to 200 years; Camel, from 50 to 60. The following domiciliated animals average as follows:—The Horse from 25 to 35 years, the Ass 25 to 60, Dog 15 to 25, Bull 30, Hog 20, Cow 20, Ox, employed in agriculture, 18; Cat 18, Sheep 10, Goat 10.

Of Birds—The Parrot averages from 100 to 126 years, an Eagle 100, Swan 100, Goose 50, Sparrowhawk 40, Lark 16 to 18, Canary Bird, if it breeds, 10 years, if it does not couple, 24; Hen 10, Peacock 24.

Of Fish, the Carp, 150 years, is the longest liver known; Tortoise 100; Crocodile 100; Pike 100; Crayfish 20."

Influences of Atmospherical Electricity.—M. Craig completes a paper on this subject with the following deduction:

"1st. That heat and electricity are identical, as the one can be converted into the other.

"2d. That a large volume of electricity surrounds every primary constituent of matter, especially that form of matter which constitutes the gaseous bodies.

"3d. That animal heat is supported by the electricity liberated from the primary constituents of matter during the processes of respiration digestion, and assimilation.

"4th. That electricity is evolved during these processes on the same principle as that which is evolved during the action of a galvanic arrangement.

"5th. That electricity and nervous power are analogous, if not identical; as the action of the one may be successfully substituted for the other.

"6th. That the majority of diseases are caused either by the sudden abstraction or slow subduction of electricity from the body.

"7th. That a low state of electric tension on the surface of the earth produced either by the operation of evaporation, or some occult movement in the great internal currents of the earth, is the remote cause of epidemic and pestilential diseases.

"8th. That occasional and ordinary diseases are produced by the sudden abstraction or slow subduction of electricity from the body, or its undue elimination during the vital processes.

"9th. That since electricity is so essential to the integrity of the vital operations, it is indispensible that measures be taken to promote its evolution and prevent over-radiation.

"10th. That electricity is the source of vitality in vegetable life.

"11th. That electricity is attracted by the fibres of the roots of plants; and by the instrumentality of the electric fluid does the plant extract its constituents from the soil.

"12th. That vegetables of rapid growth require a large supply o electricity to secure their perfection and completion; and the potato is a plant of this kind.

"13th. That the disease in the potato was produced by want of nutrition.

"14th. That the want of nutrition arose from defective electric agency.

"15th. That the cause of the deficiency of this agency, was those abstracting agencies which produced low tension of electricity."

Amylene Condemned at the Académie de Médecine.—M. Giraldès having recently sent a paper to the academy, entitled, "Clinical Study of Amylene." MM. Robert, Larrey, and Jobert formed the committee to which it was referred. In the report read on the 18th instant, M. Jobert details various experiments and observations he has since made with this substance, both with and without apparatus; and he comes to the conclusion that amylene exerts an energetic and dangerous influence. The statement that has been made, that it is less active than chloroform, is only true when it is administered in the open air, and is explained, he says, by the rapidity of its evaporation. If only a sponge be employed

there are only produced, after a period varying from nine to nineteen minutes, muscular agitation and acceleration of pulse, effects that ensue in from five to seven minutes if the sponge be placed in a cone of pasteboard. If an apparatus be employed however, amylene becomes a most energetic anæsthetic, the desired result occurring in two, and often in one minute. The effects of this agent are the increase of the number of the pulse by thirty or forty, the modification of the color of the blood, and the perturbation of the nervous system, inducing insensibility, coma, and the abolition of the intellectual power. It is thus a toxical agent, acting simultaneously upon the vascular and nervous systems. M. Giraldès does not advance sufficient proof that amylene is less dangerous than chloroform; and even M. Robert's proposition of employing it in certain exceptional cases is not admissible, inasmuch as amylene possesses the inconveniences, without the advantages, of chloroform. Chloroform does not, like amylene, deprive the blood of its red color; and while chloroform depresses and renders the pulse slower, amylene quickens it, producing congestion of organs. Amylene is of difficult administration, while chloroform is easily given. Chloroform has furnished to M. Jobert the same satisfactory results at all ages, and he believes that it is not more injurious in infancy than at a later period. He proposed that the conclusions of the author in favor of amylene should not be received; but as the communication is interesting in other points, the thanks of the academy should be returned for it.

M. Velpeau proposed a stronger condemnation of amylene on the part of the academy; for from the experiments even of the reporter, it was evident that amylene is more difficult to manage, and more dangerous in its results. In the recent case of death from it, there were not the extenuating circumstances adduced for chloroform or ether, such as the want of skill or experience of the manipulator, since it was the inventor himself who directed the procedure. "I maintain that a substance which in so short a time, and in the hands of him who recommends it, is dangerous to such a point, that its employment ought not to be permitted; and I propose that the academy formally reject it."

M. Larrey observed that he completely agreed with M. Velpeau, and he should have thought that M. Giraldès, after having been present at Dr. Snow's last accident, would have somewhat modified his ideas upon the subject.

M. Jobert added, that when amylene is administratered on a sponge, anæsthesia sometimes cannot be produced for half or three-quarters of an hour. If Charrière's apparatus be employed, it is rapidly induced, but at the expense of serious accidents. It differs from chloroform, in that the insensibility it induces is instantaneous and not progressive. It produces an important modification of the blood.—*Moniteur des Hôp.*

Asparagin in the Root of Robinia Pseudacacia.—Prof. Hlasiwetz finds that the root of this plant contains a considerable quantity of asparagin. When boiled with water, the roots give a decoction, which, when evaporated to the consistence of syrup, deposits after some days a considerable quantity of hard, tolerably large octahedral crystals. By recrystallizing twice they become colorless, and appear highly refractive, do not effloresce, and have a slight sweet taste. The solution is neutral, evolves ammonia when mixed with caustic potash, and is not precipitated by acetate of silver or by acetate of lead. Analysis showed that they are asparagin.

This substance appears to occur very frequently in the members of the leguminous tribe. It has already been recognised in peas, beans, vetches, &c.

By simply making a decoction, and evaporating to a syrupy consistence, a very pure substance may be obtained after recrystallizing twice. About thirty pounds of the root yielded upwards of two ounces and a half of asparagin.—*American Druggist's Gazette.*

Tannic Acid of Nut-Galls.—Dr. Rochleder ascertained some time since that the action of boiling alkaline solutions in an atmosphere of hydrogen is a good means of effecting the separation of certain organic substances. At his instigation, Dr. Kawalier has followed out this fact, and found that many substances which, by the action of dilute acids and heat, are separated into crystallizable sugar and a second substance, yield this sugar also when acted upon by boiling alkaline solutions in hydrogen. Among other substances, tannic acid has been treated in this way, and found to be converted into gallic acid, and an amorphous, rather bitter and acid tasting, yellowish substance, similar to gum, and having a composition agreeing with the formula $C_{14}H_8O_9$. No trace of sugar was found, even from 150 gramms of tannic acid ; and the liquid from which the gallic acid had been separated did not reduce an alkaline solution of copper.—*Idem.*

Preparation of Sulphocyanide of Potassium in the Wet Way.—Dr. Löwe states that when a solution of ferrocyanide of potassium is boiled with an excess of hyposulphite of soda, the reddish brown color of the liquid disappears after a while, black sulphide of iron is deposited, together with some sulphur, originating from the decomposition of the hyposulphite by heat. The yellowish liquid which remains contains sulphocyanide and ferrocyanide of potassium, together with sulphate and hyposulphate of soda, and a small quantity of sulphide of sodium. By evaporating to dryness, and digesting the residue with alcohol, the sulphocyanide may be separated from the other salts.—*Idem.*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

A Vaccine Depot.—Physicians generally are often in need of Vaccine virus from various reasons. Either an excess of good nature leads them to part with their little store to some brother practitioner requiring it more urgently than themselves, or an unusually long run of no-vaccination engagements happens and ends in rendering the stock on hand so impaired as to be virtueless. In this last case, of course, no return can follow, and in the former it is altogether problematical, for the loan is rarely refunded—indeed it has almost become a custom with many to consider such an act uncalled for. Country physicians are especially open to this charge, and do much towards exhausting the supplies of their town friends: we know of no instance where one of the number has returned the obligation in kind. These then are instances of the manner in which the vaccine fund fails. And we believe much would be done to avert them by the establishment of a Vaccine Depot; while it would at the same time be admitted to be a welcome accommodation to all parties. Owing to the facilities of keeping a constant supply of live Virus, in consequence of its self-multiplication properties, and the daily frequency of its employment, we feel assured that such an establishment, if conducted on proper arrangements, and in conformity with strict rules, would be found to work very advantageously. For the inconveniences felt by single members of the profession would not extend to it. A large supply sufficient for the demands of both the city and surrounding district could be always available, and kept fresh by a renewal to be enforced by close looking after. A vaccine depot might easily be connected with some of the charitable institutions here, such as the General Hospital or University Lying-in Hospital or Dispensary. It would often, we are sure, be a great relief to a person, already straitened, to refer an importunate solicitor to such a place where he might get the necessary article upon the payment of a small sum of money, or by leaving a deposit of a fixed amount to be returned when a new crust had been received.

Such an Institution might furthermore be of great benefit in other ways, as by keeping records of statements furnished by Physicians of the prevalence of Variola, the apparent mitigation or failure of the Vaccine virus, the results of re-vaccination, and many other equally interesting points of an analagous character, which could easily

be deduced from an attentive consideration of statistical information. The original statement need but be brief, and would require very little time or trouble, while the general gain would be more than compensatory.

Medical Officers in Public Institutions.—Concurring in the sentiments expressed in the subjoined letter, we give it an insertion in our columns as it first appeared in the Montreal Herald. In a profession like the Medical in Canada, where there are so few public appointments to be expected, it is very necessary that these should be bestowed upon Colonists, and not upon mere adventurers who have no other stake in the country than the maintenance they failed to secure in their own land. We cannot speak so positively of other lines of life, but of our own this we know, that Physicians are to be found throughout this Province not inferior in talent or education, in sense or experience, to any foreign protégé of imported origin; and who by their knowledge of local matters and home requirements, enjoy an advantage over the latter which even many years residence amongst us might not remove.

To the Hon. Col. Taché.

Sir,—The well known integrity of your character induces me to address you thus publicly, for the purpose of calling your attention to the current rumour that His Excellency the Governor General has actually sent out from England an old Navy Surgeon, whom he intends to appoint Chairman of the Board to be named under the act 20 Vic., chap. 28, for the better Government of Public Asylums, Hospitals, &c.

Now, Sir, if this report be true, and I have every reason to believe it is, I do hope that both yourself and your colleague, the Hon. Mr. Cartier, will not be so recreant to your antecedents, as to consent to any such appointment, nor allow a slur of so deep a cast to be fastened upon the members of the medical profession of Canada. No, Sir, I cannot bring myself to believe that you will be a party to any such act, but take the same stand in the matter you are reported to have done when the appointment of a medical officer to the Toronto Lunatic Asylum was before the Council.

There are many Medical men in Canada perfectly competent for this or any similar situation, as must be well known to you; and now that your attention has been drawn to the matter, I will leave it for the present in your hands, feeling certain that justice will be done.

I am, Sir,

Yours,

A Canadian—not a British

Graduate in Medicine.

Montreal, October 26, 1857.

Schiedam Schnapps.—This liquid has been largely recommended in a medicinal way, as a suitable Aromatic, Cordial, Diuretic and Stimulant; combining a collection of properties that are often found conjointly indicated in the treatment of various diseases, dependant upon or connected with a faltering stamina or reduced state of the system. And as long as it is confined to this, which is the legitimate use of all ardent spirits, its employment is justifiable, but to extend it further and render it a table drink, as it might be in countries where Maine Liquor Law is dominant, is to bring it into general condemnation and make it contrast unfavorably before men with other potations just as able "to steal away their brains" or bring down their strong frames to an early grave.

Blancard's Pills of the Iodide of Iron, &c.—Iodide of Iron is a preparation of great efficiency, in all cases where conditions demanding the exhibition of Iodine are present, conjoined with an anæmic state of the system. The great objection to the pharmaceutical preparations, is the tendency which they have to alter upon the slightest exposure to the air, even at ordinary temperatures. The iron attracts oxygen, and passes into the state of sesquioxide, while the iodine becomes free. The Pills of M. Blancard are, however, free from this objection. The Academy of Medicine of Paris appointed a commission, consisting of M. M. Gibert, Guibourt and Lecanu, to examine the mode of preparation of these pills; and they have reported, among other things, that, "we consider the process of M. Blancard as perfectly fulfilling its intended object, namely, the preservation of the proto-ioduret of iron in the pills, by means of particular manipulation." The same gentleman (M. Blancard) has also prepared an unalterable Syrup of the Iodide of Iron, which will be found the most convenient and agreeable form to administer the remedy to children and young persons.

Messrs. Johnston Beers & Co., of the Medical Hall, Great St. James Street, have sent us specimens of the above, with some beautiful crystals of iron alum of their own manufacture. This chemical, as we stated to our readers some time ago, is a new and favorite preparation of Iron which has recently been introduced to the notice of the profession by the Physicians of St. Mary's Hospital, London. It is a very soluble salt of a pale violet colour. It forms a solution of a reddish colour. It is isomorphous with common alum, its crystals being of the octohedral form, and its composition being represented by the formula $Fe^2, O^3, 3SO, \times NH\,O, SO^3, \times 24\,HO$. As in the double sulphate of alumina and potash, the potash may be replaced by some other base, so in this salt, soda or potassa may be substituted for the oxide of ammo-

nium. There being no alumina present in iron alum, Mr. Davenport suggests, "that this salt when ordered as medicine should be called *ammonia-sulphate of peroxide of iron*, when the ammonia salt is intended, or *potassio-sulphate of peroxide of iron*, if it were intended to indicate the potash salt." Dr. Tyler Smith has found it to be "a more powerful astringent than common alum, and not liable to produce the stimulating effects of other salts of Iron."

Books Received for Review.—Cazeau's Midwifery, second American, translated from the fifth French edition, 1857. Mendenhall's Student's Vade-Mecum, fifth edition, revised and greatly enlarged, 1857. Physician's Visiting List for 1858; from Messrs. Lindsay and Blakiston, Philadelphia. West, on Diseases of Women,—part 1st, Uterus, 1857. Wilson, on diseases of the Skin. Fourth American, from fourth and enlarged English edition, 1857, from Messrs. Blanchard & Lea, Philadelphia.

Eve's collection of remarkable cases in Surgery, 1857, from Messrs. J. B. Lippencott & Co., Philadelphia. Ashton, on Diseases of the Rectum, second edition, London, 1857, from the Author. Hind's Prize Essay on the Insects and Diseases injurious to the Wheat Crop, from the Author. Dupont's Essai sur les insectes et les maladies qui affectent le blé, from the Author Hamilton, on Compound Dislocation of Long Bones, from the Author. Green, on Lesions of the Epiglostic Cartilage, from the Author. Carnochan, on Exsection of the entire Os Calcis, from the Author.

We have received the Report of the last Meeting of the College of Physicians and Surgeons of Lower Canada, but too late for insertion.

Pass List.—College of Physicians and Surgeons, C. E.—On the 13th October, at a meeting of the College held in Quebec, the following gentlemen were examined, viz:—Messrs. J. Desjardins, J. B. Beauchemin, A. M. Rivard, Napoleon Carrier, Alfred Lachaine, — Dancause,—who were admitted to the study of medicine:—Messrs. Dieudonné Archambault, Ant. Marceau, L. G. Delorimier, P. H. Bernier, Hughes Filiatreault, J. S. Crookshank, R. Anderson, H. de la Martellière, with a Diploma of the Faculty of Paris; Ch. Morin,—who were licensed to practice medicine; and Hyacinth Cuniff, who was licensed as a Chemist and Druggist.

Secretary's Office,
Toronto, September 26, 1857.

Medical Appointments.—His Excellency the Administrator of the Government has been pleased to make the following appoint, viz. :—

Volunteer Militia Rifle Company of Paris,—To be Surgeon: John Watt, Esquire.

His Excellency the Administrator of the Goverment has been pleased to grant Licenses to practice Physic, Surgery, and Midwifery, in Upper Canada, to the following persons, viz :

James F. McCarthy, of Ingersoll, Esq., Physician and Surgeon; and Arthur Andaugh, of Barrie, Esq., Surgeon.

Toronto, Oct. 10, 1857.

His Excellency the Administrator of the Government has been pleased to grant a License to Henry Orton, of Guelph, Gentleman, to practise Physic, Surgery and Midwifery, in Upper Canada.

Toronto, Oct. 17, 1857.

His Excellency the Administrator of the Government has been pleased to make the following appointments, viz. :—

David Evans, Esquire, M.D., to be an Associate Coroner for the United Counties of Lanark and Renfrew.—Wm. S. Backwell, Esquire, M.D., to be an associate Coroner for the County of Brant.—Thomas C. Scholfield, Esquire, M.D., to be an Associate Coroner for the County of Simcoe.

He also has been pleased to grant Licenses to practice Physic, Surgery and Midwifery, in Upper Canada, to the following persons, viz. :—

Henry Augustus Betts, of Toronto, Esquire, M.R.C. of Surgeons, London, and Archibald Alexander Riddel, of Toronto, Gentleman.

Toronto, Oct. 24, 1857.

His Excellency the Administrator of the Government has been pleased to grant Licenses to practise Physic, Surgery and Midwifery in Upper Canada, to the following persons, viz :—

Henry Bental Evans, of Picton, Esquire, M.R.C. of Surgeons, London, and Henry Hall, of the Township of Westminister, Esquire, M.B.

Erratum.—In the *Gazette* of the 17th instant, for William S. "Backwell," read "Buckwell," appointed a Coroner for the County of Brant.

First Volunteer Militia Rifle Company of Megantic.

To be Surgeon :—Louis Majorique Rousseau, Esquire.

HOSPITAL RETURN.

Monthly return of Sick in the Marine and Emigrant Hospital, Quebec, from the 3rd to the 30th September, 1857.

	Men.	Women.	Children.	Total.
Remained,	37	10	2	49
Since admitted,	85	7	2	94
	122	17	4	143
Discharged,	87	10	3	100
Died,	2	0	0	2
Remaining,	33	7	1	41

DISEASES.

Fever,	7	Asthma,	1
Inflammation of lungs,	1	Cancer,	1
Dyspepsia,	4	Paralysis,	1
Rheumatism,	8	Hemoptysis,	1
Dysentery,	8	Hematemesis,	1
Diseases of skin,	1	Stricture,	1
Inflammation of testicle,	4	Pregnancy,	2
Syphilis,	17	Ophthalmia,	1
Fractures,	4	Cholera,	1
Dislocation,	1	Epilepsia,	1
Abscess,	11	Feb. Intermittens,	2
Ulcers,	4	Periostitis,	1
Wounds,	2	Hypertrophy, heart,	1
Contusions,	7		

C. E. LEMIEUX,
House Surgeon.

MEDICAL NEWS.

The medical man who neglects or scorns the periodical literature of his day is either a fool or a knave, and cannot maintain a respectable position among intelligent men.—The Academy of Sciences, Toulouse, has proposed as a subject for the grand prize of 1860, the following question: What are the positive results which have been obtained in Clinical Medicine from Physiology, since the beginning of the 19th Century? The memoirs are to be addressed before the 1st of January, 1860, to M. Vitrey, Perpetual Secretary.—Dr. Tyler Smith has recently announced that 3000 women die annually in child-bed in England: 1 in 171 labors.—An Italian journal notices that several cases of dysentery have been successfully cured by means of raw or very rare beef and mutton.—"Doctor, do you know *jist* what will stop flooden," asked a withered crone of the attendant. In return he asked her if she knew of such a remedy. "Well," she said, "let the woman swallow *jist two draps* of the blood in that 'ar cord (umbilical) and thar's an eend o' flooden." The Doctor admits he was vanquished.—The Royal Society has awarded the Queen's prize of 500 dollars from the fund appropriated annually for the encouragement of scientific researches to Dr. E. Brown Sequard.—Prof. Huston offers his cabinet of Materia

Medica specimens for sale with which he used to illustrate his course in Jefferson Medical College. For particulars apply to Mr. Parrish, 800 Arch Street, Philadelphia.—The statue of Jenner has been most successfully cast in bronze. America has contributed £340 towards its expenses.—The retired Physician whose "sands of life are nearly run out," as his ubiquitous advertisements declare, sends a receipt, in return for four postage stamps of three cents each, for extract of Cannabis Indica. Perhaps the "sands of life" may run out faster from those who swallow the dose than from the quack who directs it.—"I am often asked," said Mr. Abernethy, "why I don't practice what I preach?" I answer by reminding the inquirer of the parson and the sign post: both point the way, but neither follows its course.—Fancy. An old lady, with spectacles, applying at a chemist's shop is accosted by a lad whose tiny hands can hardly raise his head above the counter, with, "Mr. Pottle is out of town, Mum; can I give you any adwice?"—Glycerin preserves animal and vegetable substances from putrefaction or decomposition.—The Medical College of Ohio and the Miami Medical College have been consolidated under the name and style of the former.—A lady in Otsego county, N. Y., presented her husband with four living children at one birth.—The Chicago Homœopathic Hospital has been finally abandoned as a failure.—A patient of Dr. A. S. McGregor, of Gasconade, Mo., gave birth August 10, 1856, to a still-born child, twenty-one days after to a living child, and twenty-one days thereafter to still another.—Dr. Fordyce sometimes drank a good deal at dinner. He was summoned one evening to see a lady patient, when he was more than half-seas over, and conscious that he was so. Feeling her pulse and finding himself unable to count its beats, he muttered, "Drunk, by—!" Next morning, recollecting the circumstance, he was greatly vexed; and just as he was thinking what explanation of his behaviour he should offer to the lady, a letter from her was put into his hand. "She too well knew," said the letter, "that he had discovered the unfortunate condition in which she was when he last visited her; and she entreated him to keep the matter secret in consideration of the inclosed," (a hundred pound bank note.)—Sickness has broken out among the troops forming the Chinese expedition, but the deaths are not numerous. Of 600 men, forming the strength of the 59th Regiment, 159 are in Hospital.—The Egyptian Locust, *gryllus migratorius*, has paid a visit to England.—The remains of a young man who died 3 years ago of Consumption in Illinois, were lately exhumed for the purpose of obtaining a portion of the lungs to make tea for a sick member of the family.—Why? Rhadamena palinata and Laminaria saccharina, two species of Algæ which are frequently used as food by the inhabitants of Ireland, impregnate the body of each consumer with two or three pounds of Iodine every year! nevertheless no Iodism appears, nor Scrofula nor Rachitis either.

THE

MEDICAL CHRONICLE.

VOL. V.] DECEMBER, 1857. [No. 7.

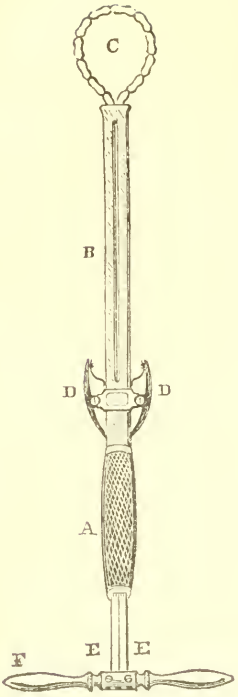
ORIGINAL COMMUNICATIONS.

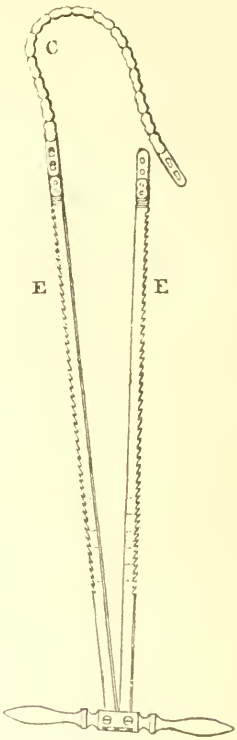
ARTICLE XXI.—*Cases in Surgery.* By D. C. MACCALLUM, M.D., M.R.C.S.L., Professor of Clinical Surgery, McGill College; one of the Surgeons to the Montreal General Hospital, &c.

Case 3.—Removal of Internal Piles by the Ecraseur Linéaire of Chassaignac.

The profession in France and Great Britain have lately been much interested in a new instrument, the invention of the celebrated Parisian surgeon Chassaignac, and called by him the metallic articulated ligature. He first brought it before the Surgical Society of Paris in the year 1850; but since that time it has undergone various modifications, and there are at present two or three different kinds of *écraseurs* in use. The one which meets with the approval of the inventor is manufactured by Matthieu of Paris, and is the one generally employed in England. The following woodcut, which I introduce with the view of facilitating the description and enabling the reader to comprehend better the peculiarities of the instrument, is an exact representation of a highly-finished and beautiful *écraseur* made by Messrs. J. & J. Ferguson, Giltspur Street London.*

* The price of this instrument is three guineas; but the Messrs. F. write me that they can furnish *écraseurs* made according to Charrière's pattern for thirty shillings. Should any of our readers feel desirous of obtaining one, they can do so by placing themselves in communication with Mr. Dawson, who will take orders for them.





The first of the above figures represents the instrument complete and in working order. It consists of B, a flattened tube or sheath of polished metal, measuring eleven inches in length and half an inch in width; the bore being about four lines by three. At one end is arranged a wooden handle, A; and just above the handle, on each side of the tube, a strong spring-catch, D, to play into the teeth of the two rods, E, which traverse the centre. As the tube is open at both ends, the rods may be readily removed. They are square metallic bars, perfectly smooth on their inner or applied surfaces, but notched on their outer sides. At one end they are firmly connected with a steel handle, F, by means of screws, and at the other they are furnished with small pivots, on which is fastened the chain, C. When the instrument is worked, it is held firmly with one hand by the wooden handle on the barrel, whilst with the other the extremities of the steel handle, into which the bars are fixed, are alternately raised and depressed. By these movements the bars alternately advance, the extent of the motion being deter-

mined by the spring-catches on each side, which slip into the teeth of the rods with a clicking noise; and as the rods advance, the space in which the letter C is placed becomes gradually smaller, until at length the chain, which forms its circumference, is drawn completely into the bore of the tube. The second figure exhibits the appearance of the bars and chain removed from the barrel. The chain does not differ materially from the ordinary chain-saw; it is, however, much heavier and stronger.

The object proposed by Chassaignac in the invention of the *écraseur* was the obtention of an instrument which should combine the safety of the ligature with something like the celerity of the knife. And in this he has completely succeeded; for although in its motion it is undoubtedly slower than the knife, it is more rapid than the ligature, and can be used in cases where the knife is wholly inadmissible. "Its action," says Mr. T. Spencer Wells, "is direct action; not indirect, like the ligature, which only divides tissues by the process of gangrene it induces. The *écraseur* first condenses the tissues it acts on, and then divides them with extreme regularity. The wound does not appear at all bruised or torn. When it acts on an artery, it first divides the two internal coats, which are folded up in such a manner as to plug the vessel. The closure is assisted by the agglutination of the outer coats before they are divided; and after separation has been effected, the closure is so perfect that the channel cannot be opened by blowing forcibly through it. Experiments have been made at the Veterinary School near Paris, and the carotids of sheep have been divided without loss of blood. There is nothing surprising in this, when we remember how seldom severe gunshot, lacerated, or contused wounds bleed; that a limb may be torn off by machinery and no blood be lost; and that bites are very rarely attended by hemorrhage. The lower animals have no occasion to apply a ligature upon the umbilical cord of their young: they simply bite it through; and the action of the *écraseur* is much more like that of biting than of crushing."

The *écraseur* has now been employed in a great variety of cases by Chassaignac, who appears to consider, like most inventors, that his instrument admits of almost universal application in operative surgery. He has employed it for the removal of hemorrhoids, prolapsed anus, polypi of the rectum, uterus, and nose; he has performed with it amputation of the breast, tongue, penis, and neck of the uterus,—extirpation of the testicle, tonsils, vascular and other tumours; and lastly, he has used it in the operation for fistula in ano, and the radical cure of varicocele. Mr. O'Doherty, in the Dublin Quarterly Journal for August, gives the following *résumé* of the results in eighty-four cases operated on by M. Chassaignac:—"1st. The inflammation which follows operation

by the *écraseur* is much less than that observed after operations by the bistoury. 2nd. Suppuration is diminished to an enormous degree; so much so, that after the operation for fistula or the removal of hemorrhoids, there is no need for dressing after the first two or three days: a little flour dredged on the wound will be enough. 3rd. The slight traumatic inflammation and little suppuration explain the rapid cicatrization which follows the *écraseur*. 4th. One of the most remarkable properties is that of being unattended with purulent infiltrations in the neighbouring parts, which so frequently follow operations with the knife. 5th. The pain attending and following it is much less than that following the bistoury. 6th. All hemorrhage, whether primary or secondary, is prevented in a certain manner; for not a single instance of nervous delirium, or of tetanus, has followed its employment. 8th. If it does not wholly prevent purulent absorption, it certainly diminishes the chances of this accident exceedingly; since out of the eighty-four cases observed, on one occasion only was there any evidence of its having occurred, and this was in the midst of exceptional circumstances which deprived the operation of its most essential qualities. 9th. Complete absence of the occasional accidents of ordinary wounds, such as erysipelas, hospital gangrene, inflammation of absorbents, abscesses, &c."

It is essentially necessary in using the *écraseur* that the part to be removed should be pedunculated. In many cases this may be easily effected by embracing the base of the tumour firmly in a ligature; but when the base is very broad, the part should be drawn well out from the surface and several long curved needles passed, in different directions, beneath it. A ligature should then be placed beneath the needles, and drawn tightly to form a peduncle. The chain of the instrument is next carried around the neck thus formed, tightened on it, and then made to crush its way through by working the handle. When a tumour is very large, or extends deeply into a canal, the best plan of procedure is to divide it into two separate parts by means of the *ecraseur*, and having pedunculized each portion, to remove them simultaneously, using for this purpose, two instruments. One *ecraseur* will answer quite well, but the time occupied will be much longer. To pass the chain deeply beneath a part, it is necessary to employ a long and curved trocar and canula, sufficiently large to admit the chain freely. This being made to traverse the base of the tumour, the trocar is to be withdrawn and the chain conducted through the canula by means of an attached piece of gum elastic bougie. The canula is then to be removed.

In the use of the *ecraseur*, says Dr. MacLeod, "it is essential to proceed with slowness and great gentleness. The holding of the instrument firmly, so that it will not shake much during use is a matter of much

moment to the avoidance of hemorrhage. Though in many operations it will be sufficient to allow half or even a quarter of a minute to elapse between each movement, yet to avoid all fear of hemorrhage in the case of very vascular growths, it is well to give a minute to each link. This apparent slowness, and the absence of that 'dash,' so much coveted in the surgery of this country, and which this slowness prevents, is one reason why I believe the *écraseur* will not make such way as it otherwise might in England."

Case.—(*Reported by Mr. Duckett.*)

Catherine O'B., aged 24, a strong robust girl, a servant by occupation, was admitted into the Montreal General Hospital some time during the month of February, 1857, suffering from an attack of Periostitis. About the end of March, she complained to Dr. MacCallum of being much troubled with "bleeding piles." She stated that she first noticed them six years ago, previously to which, however, blood occasionally escaped from the bowels during defæcation. At first they were small in size, and protruded only during a motion; sometimes they disappeared entirely for months, but returned whenever she was exposed to cold, or suffered from constipation. Latterly they have increased considerably in length, and protruding at times during locomotion, they cause great pain and inconvenience. They always bleed during the passage of a motion, and sometimes so freely as to produce faintness, and subsequent debility. On examination, the anal orifice is seen to be surrounded with loose folds of skin, evidently the remains of external hemorrhoids. By slight straining efforts, three internal tumours are brought into view. They are somewhat pendulous; situated near the upper margin of the internal sphincter, and quite close to each other. The largest of the three is about the size of the extremity of the middle finger.

The patient having been prepared by the administration of a dose of castor oil the previous night, and an enema of warm water half an hour before the time appointed for the operation, she was placed on the operating table, lying on her side, her thighs flexed upon the abdomen, and her buttocks protruding slightly beyond the edge of the table. Chloroform being given to the extent of producing a complete anæsthetic effect, the largest of the hœmorrhoids was seized with a vulsellum and drawn down until it was quite external. A small firm ligature was then drawn tightly around its base, and a pedicle being thus formed, the chain of the *écraseur* was made to encircle it closely. The instrument was then worked, the interval allowed to elapse between each movement of the handle being half a minute. An assistant, holding a watch in his hand, gave notice whenever the thirty seconds had expired. At the termination of twelve min-

utes from the commencement of the operation, is was noticed that a small portion of the mucous membrane remained unsevered, and that a portion of the tumour was being drawn into the sheath of the instrument. This necessitated the relaxation of the chain for the purpose of drawing the tumour well out, and extending it firmly. Being tightened around it once more, and the handle worked, it soon accomplished the complete detachment of the hœmorrhoid. The whole time occupied was fifteen minutes. No hemorrhage whatever occurred, and the resulting wound was a mere line. The two remaining tumours were removed a few days afterwards. They were included in the same ligature, and consequently taken away together. After this latter operation the patient lost fully eight ounces of blood, attributable to the circumstance of her having once started suddenly during the course of the operation. The wound in both instances healed with great rapidity.

ARTICLE XXII.—*Observations on the Pelvic Viscera*, by M. F. Colby, A.M., M.D.

The importance of the functions performed by the viscera of the pelvis, with their associate connection and great sensibility, renders their functional actions, as to their influence on each other in their abnormal state as well as their morbid influence on remote parts, in their disturbed manifestations, a subject of too much consequence not to engage the close attention of all engaged in the practice of medicine. They all receive the same nerves not only cerebral but spinal and splanchnic, and of course possess all the sensibility and contractility of both the animal and organic life. In all their functional acts the rectal apparatus, which I alluded to in the August number of your Journal, is brought into requisition. It is thus that their functions become identified with those of the descending bowel.

To illustrate some of these influences, I beg to refer to a few cases out of the many which have passed under my observation, and which have a bearing on the subject. Mrs. C———, of this Township, whose case, as a clairvoyant, I reported in the Boston Medical Journal, some 18 years ago, was a woman of refinement, highly intelligent, strictly religious, and possessed a high moral standing. In early life she had inflammation in the pelvic viscera which resulted in closure of the uterine walls, and the menstruation which occurred in after life, proceeded from the upper part of the vagina. These facts I did not know while she lived, but in my report I stated as a remarkable fact, that her menstruation had been uniform—never profuse or in excess—and that leucorrhœa did not cause the

usual faintness and palpitation of the heart, and that her pulse under all circumstances had been uniformly about 80. In the different periods of illness, in which I attended her, there was in all a most astonishing development of sensibility. She would, at times, remain unconscious for several days, still her muttering indicated intense suffering from pain in the head. At other times she would remain totally blind for several days, yet she appeared susceptible to light, as a candle brought into the room would cause vomiting followed by general spasms.

She was subject to turns of reverie in which the mental powers seemed poetically developed, as she would change all subjects introduced, into poetry on the instant. Her religious and other lectures given in her reveries were pre-appointed by herself and given with perfect regularity. It appeared in some of them that all vitality was concentrated about the head as her face would be flushed, while the surface and extremities became cold and pulse scarcely perceptible.

At times she was remarkably clairvoyant, and would tell the time and read the smallest print in total darkness. We gave her a very small testament in one of her reveries, I drew up the bed clothes between her eyes and the book, and she read a part of the 5th chapter in Matthew, and part of one in Revelations. During this time her eyes were closed and the room without light. She also read the very small print under the picture of Christ instructing Nicodemus. My wife and Dr. Barnard, now of Texas, were present with others. In the post mortem I first mistook the stomach for the colon. It was about 10 inches in length and 2 in breadth. In cutting, it had the brittleness of tendon, and altho' she died of peritonitis the stomach did not appear inflamed. The walls of the uterus from appearance had been closed before menstruation ever took place. The upper two thirds of the vagina was full of red points from which the menstrual blood had flowed. These were rather pores resembling those in hogs leather. The brain was healthy in appearance but somewhat engorged with blood.

A case occurred about four years ago which illustrates the functional character of the descending bowel. I was called to counsel with Dr. M. The woman had been sick, as they supposed dangerously, about three days. She had most violent periodic pains in the line of the descending bowel. Dr. M. had bled, cupped and given her physic without relief. The latter they said operated well. She told me that she had, at times, got relief from change of position, yet the pains would return. She had none in the transverse colon or in the small intestines and altho' she was free from tenesmus and dysuria, I suggested an examination. I could not reach the os-tincæ with the finger, but on passing the finger up the rectum I found that the uterus had fallen directly back and was so firmly

pressed against the sacrum that I was not able to move it. I prepared from cloth dipped in melted wax, two bougies, one I passed into the vagina the other into the rectum. After raising the hips these were passed upward, and I removed the uterus from its impacted state. The patient was then well. While present I noticed the peculiar parturient character of the pains in their periodicity. There had been no tenesmus for the fixed state of the rectum would not permit its being raised by the levator muscles. Had there been stricture of the rectum there would have been tenesmus and pain extending to the transverse colon and perhaps to the small intestines. In this case both the rectum and uterus were firmly fixed and the pain in the descending bowel assumed a parturient character. I see a case lately reported in Braithwaite in which small pieces of wood had been passed into the os-uteri. The only symptom produced, was a continued tenesmus, till they were removed, and more recently I see a case of hemorrhage from the rectum which could not be relieved till the os-uteri, which was found diseased, was cauterized. I have no doubt but ergot acts on the uterine system through the medium of the descending bowel. I have long used small doses of castor oil as a parturient in lingering cases. Ergotine has been of late used successfully in dysentery. I think both ergot and nux-vomica thrown up the bowel in enema would act as a parturient.

The peculiar symptoms in hydrophobia point to the rectum as its primary seat. If it should prove so, strong anodyne injections alternated with nitrate of silver, might prove successful. In this case they should be very strong. It would not be possible in the limits of an article in your journal, to enumerate all the cases bearing on this subject. I feel very sure that eight tenths of all cases in insane asylums will be found connected with disordered states of parts connected with the pelvic viscera. The late epidemic colonitis in this village presented one remarkable phenomenon. In some places there would be a sudden cessation of the dysenteric discharges and nothing except a watery fluid pass—at the same time symptoms of infantile cholera would supervene, such as retching, spasms in the extremities, cerebral symptoms and death. The upper part of the rectum was spasmodically contracted so that a bougie could not pass, while the lower part of the rectum was open and relaxed. In such cases occurring in the adult an infusion of 5 or 6 grains of opium, if it could be thrown up the rectum and retained would relieve the spasmodic contraction in 15 minutes and the usual discharge would follow. In one case not a drop could be thrown up, the rectum was so firmly contracted. In this case I directed belladonna to be thrown into the vagina with the same favorable results. In one case this spasmodic state was brought on at two different times by cathartic medicine.

In females of plethoric habits and great sensibility subject to periodical loss of consciousness, usually there will be found constipation from a strong contractile state of the rectum. The neck of the uterus is generally rigid from the same cause. It appears that the natural stimulus of the blood together with periodicity, is too much for the sensitive organ and the disturbance is felt in the sensory ganglia, and a loss of consciousness for a time is the result. This may be permanent and result in death. I saw a case lately in which the patient remained unconscious for twelve weeks. Previous to her marriage—eight or ten years ago—she was remarkably sensitive in the pelvic organs. She was much troubled with hemorrhoids with great sexual sensitiveness. This was followed by peculiar spasmodic affections about the throat. The same nerves are sent to the throat that supply the pelvis and arise near the sensory ganglia. After the birth of her first child she remained well till about a year since, when the same irregularity of the functions of the pelvic viscera returned which was soon followed with this loss of consciousness. Post M.—Brain showed rather a paucity of blood. The first inch of spinal cord contracted to one third its normal diameter and as hard as a whip-cord. No lesion of the brain except a little hardness near the point where the cerebral nerves emanate which supply the pelvic organs and the throat. An examination of the pelvic viscera was not permitted.

This is the 2nd case which I have seen, evidently of pelvic origin. The first case was in a man some 30 years ago. He had been slender in form. He became subject to occasional loss of consciousness which usually continued three or four days. If food could then be forced into his stomach he would revive. Prof. M. advised a course of spirits turpentine for worms. Prof. S. advised a course of blue pills. Dr. A., an eminent physician in Vt., advised frequent bleeding, considering the case apoplectic. After adopting this course he became corpulent, and at his death his weight was over 200 lbs. When he applied to me I enquired into the state of the sexual system, he told me of his excesses and said that for years so great was the sensitiveness that he could not pass near a female without seminal loss. When he died I understood he had been unconscious for 9 days. I was sent for to examine the body—brain normal in appearance but much engorged. The first portion of the spinal cord for an inch, shrunken to half its usual size and flabby. There were no worms. The large bowel was ulcerated at certain points, but as my record is now lost I cannot now tell at what parts. The testicles shrunk to less than half size and flabby. The duodenum was coated with a tenacious mucous.

I should have mentioned that in the cases called dysentery like that above described, there is an extension of inflammation to the muscular

coat. It is not true dysentery but has been called so these five or six years back, in New England, where it has prevailed extensively. What I wish to call attention to is the fact that when the disease is confined principally to the ascending and transverse colon there are no cerebral symptoms altho' the fever and discharges are equally bad. But in cases where the descending bowel and the rectum are its principal seat there will be aberration of the mind or coma. In these cases the rectum will often be purple, and leeching it is the most direct means of removing the stupor. The seat of the disease can be ascertained by careful pressure in the course of the large intestine, as the part affected will be tender and perhaps slightly hard.

Stanstead, C. E., 18 Nov., 1857.

ART. XXIII.—*Puerperal Vomiting cured by the Induction of Labor ; By* Francis W. Sheriff, M.D., L.R.C.S.E.

Having recently read your article on Professor Cazeau's late work on the Diseases of Pregnancy, &c., I thought it might be interesting to some of your readers to relate a case of severe Puerperal Vomiting which lately came under my care. My patient, Mrs. Moore, first consulted me four years ago, being in the eigth month of her fifth pregnancy. She complained of almost constant vomiting, and had been reduced to great debility by absolute inanition. A few doses of hydrarg. cum cretà and opium checked the vomiting, and she was delivered of a healthy child at the proper time. The placenta was retained, and she had considerable hemorrhage before I reached her residence, which was about nine miles distant. She became anæmic and was confined to bed for nearly three months. She eventually was quite restored to health, and has not been pregnant since until this time. On the 26th of July last I was requested to visit her. I found her apparently healthy, and robust looking, pulse natural. She stated that she was in her seventh month of pregnancy and that since its commencement she had vomited a great deal, but that lately it had become much more troublesome, and that she was afraid of relapsing into her former condition, as her bowels were rather costive I prescribed the pills and a mixture of chloroform and tinct. lavand. comp. and at the same time paid great attention to the state of her bowels. On the 10th of August I was again called to visit her. She stated that since the 7th, the vomiting had been almost constant, that she retained nothing on her stomach and that she vomited a great deal more than she swallowed. She complained of great thirst, pain in the epigastrium, great anxiety and restlessness, and was urgently calling for relief. Pulse 120 of good

strength, breath fœtid, having the odour of chloroform. I bled her to the amount of ℥ viii without causing fainting, and prescribed at different times calomel and opium, senna, enemas, warm applications to the epigastrium, creosote mixture, &c., but all of no avail, the vomiting continued as bad as ever. The swallowing of a little fluid of any kind was almost immediately followed by great retching and vomiting. The fluids vomited were colourless and inodorous, and largely exceeded what had been swallowed. In addition to the medicines prescribed, I ordered nourishing enemas to be frequently administered.

11th, symptoms rather more favourable, vomiting not so severe, and has slept a little, complains more of debility, skin rather cool. Has retained a little opium, which she thinks has relieved her.

12th, 8 a.m.—Is much worse, vomiting as bad as ever, extremities cold, skin wrinkled and withered like a person in collapse of cholera. Has very great anxiety, and calling urgently for fresh air. Had to get her bed elevated to the height of the window so that she might have her head in the open air. Pulse 130 weak and variable. As it was evident that death must soon ensue if relief was not obtained, I determined to bring on labour; but before doing so, I requested that Dr. Anderson, a neighboring practitioner, might be sent for. He arrived at 3 p.m., and agreed with me on the propriety of immediately inducing labour. I introduced a flexible catheter into the uterus, ruptured the membranes, and drew off about 8 oz of liquor amnii. My patient was relieved almost immediately, and the vomiting ceased. I prescribed 1 drachm of tincture of Ergot every two or three hours, supporting her strength at the same time with stimulants and nourishing enemas. She remained easy and comfortable all night, and next morning, about twelve hours after the rupture of the membranes, labour pains came on, and continued regularly all day, but at long intervals. About 8 p.m., I administered an enema of infusion of ergot, which soon had a most powerful effect, and within an hour afterwards she was safely delivered of a living child which cried lustily. It, however, lived only about eight hours. My patient rapidly recovered, and in two or three weeks was entirely restored to her usual health. In this case so urgent were the symptoms and so rapid had been the approach of sinking and collapse, that I have no doubt that the delay of the operation for a few hours more would have proved fatal. From the immediate relief experienced after drawing off the liquor amnii, it would appear as if the cause of the vomiting had been the pressure of the gravid uterus.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. XIV.—*Lectures on the Diseases of Women.* By Charles West. Fellow of the Royal College of Physicians; Examiner in Midwifery at the Royal College of Surgeons of England; Physician Accoucher to St. Bartholomew's Hospital, and Physician to the Hospital for Sick Children. Part 1. Diseases of the Uterus. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson. 1857.

Dr. West is one of the few physicians who feel that in return for the opportunities they have had of attending an hospital, they lie under an obligation to the profession at large to communicate the results of the experience or information acquired for its improvement; in short that he has enjoyed a privilege, and now desires to discharge the obligation. Whether this opinion be sound or not, is open we believe to doubt, since in the first place it may be retorted that an hospital attendant owes the profession positively nothing for his appointment, inasmuch as he does not receive it from this body; secondly, that he is the servant of the public by whom virtually he is placed in his office of responsibility; and lastly, that the public look for no other return than a faithful and skilful discharge of the duties upon which he enters,—which it is not too much to say may be rendered at least as efficiently when the real necessities of the patients are properly ministered to, as when the unfortunate persons are merely used as vessels for novel experiments and spectacles of strange observations. We are far from implying that physicians in attendance at an hospital should disregard the interests of the profession; when these can be conjoined with the grand intention just contended for,—undoubtedly the accomplishment is most praiseworthy and beneficial; but we still disclaim against its being considered a requirement that can be justly expected, and do uncompromisingly deny that it is an imposed debt that must be discharged.

The present part which within the next three years will, with the endeavor of the author, be followed by a second,—is upon the disorders of menstruation, and of the structural affections of the uterus, including misplacements and outgrowths, and its entire matter is distributed through twenty lectures. The reputation that Dr. West acquired from his former productions, particularly that upon diseases of infancy and childhood, will secure for this important addition to obstetrical literature, general attention, and a favorable reception; and we shall be disappointed if upon examination it does not prove well worthy of its antecedents. Personally we regard it as a work especially meriting character from the

original and industrious researches of the author, since through these it tends to modify, sustain, impeach, or advance the knowledge usually entertained and promulgated upon the pathological section into the discussion of which it enters.

The class of diseases always urging a strong claim on our considerations is that for which hitherto we have found no efficient remedy, which occur, as Dr. W. beautifully observes,—"when nature's alchemy has well nigh reached its end, and the power to transmute the rough material into the highly organized and wonderfully complex tissues of the body is almost gone." This marked class produces a product which insinuating itself into parts to which it is most incongruous in structure, places them in such a condition of heterogeniety as no longer to be amenable to the treatment, which under judicious employment, is effective in accomplishing the certain removal of the more homologous exudations of diseased action. The general account our author gives of malignant diseases is highly interesting and very instructive. In reference to the prevalence of the different species of the common genus, he says,—"of a hundred and twenty cases of uterine cancer, of which I have a record, the disease appeared, from an examination during the patients' life to be of the medullary kind, in a hundred and eight, epithelial in ten, and colloid in two, while in not a simple instance did I recognize the characters of schirrus." The rarity of true carcinoma is thus shewn, contrary to the opinion, of former days, of its relative frequency. There is reason for believing that in many alleged cases the name has been undoubtedly misapplied. Concerning the comparatively rare presence of the lesion in the married and in the single, in the fertile and sterile female it is observed. "Though ample proof to the contrary has been long since adduced, we still find it asserted sometimes that single women and those who have had no children are most liable to be attacked by cancer. The truth appears to be the direct reverse of this statement; for out of 118 of the 120 cases on which my remarks were chiefly founded, there were but two in which the patients were single women, and only seven in which they were sterile; in other words, there was but one sterile marriage in every 16.6 of the cancer patients, while the general average among my patients at St. Bartholomew's Hospital was 1 sterile marriage in every 85." We take it the last averment refers to patients with all diseases generally. "Nor is this all; but the further we carry this inquiry the more strikingly does it appear,—not that sterility, but rather that over-fecundity predisposes to uterine cancer." In order to exhibit by statistics the results of labors in parturient women suffering under malignant disease he has thrown into a tabular arrangement the experience of several previous writers, and from these the general conclusions

that may be summed up are, that in 74 labors, 41 mothers perished in or very soon after labor, and 33 recovered from the effects of the delivery. In 71 instances when the fate of the child is announced there were only 26 live births, the remaining 47 infants being dead. Dr. West considers 15 months to be the average duration of life in uterine cancer,—this expression it will be observed is different to a rather popular notion, that the patients with schirrus have the gloomy prospect before them of several years of irremediable anguish. In reference to the three most common symptoms by which its course is denoted, viz: pain, discharge and hœmorrhage. We learn from 116 cases investigated by Dr. W. pain of various kinds and of various degrees of intensity existed in 19, 8 per cent.; hœmorrhage generally profuse, without pain in 43, 1 per cent.; hœmorrhage accompanied by pain in 11, 2 per cent.; pain and leucorrhœa or watery discharge, sometimes offensive, in 10, 3 per cent., and leucorrhœa or other discharge without pain in 15, 5 per cent. Each of these three great indications is fully examined, and its signification duly weighed. With regard to the last named, we are informed. "Contrary to what is still laid down in some books, bleeding so far from being a proof that the disease has reached the stage of ulceration is often the earliest sign of its existence, since it is mentioned in 43 per cent. of the cases as preceding any other ailment." And the practical advantage of remembering this truth depends upon the use, to which it may be turned, by preparing the practitioner for the development of a formidable disease, when outwardly the bleeding appears to be causeless, and inducing him to attach a more grave importance to the occurrence than to a superficial observer the case seems to justify. "The form in which the bleeding first shews itself is very various. Sometimes it is a draining of blood, not profuse, but continuous, resembling the discharge of an ordinary menstrual period, except that it may not have come on at the right epoch, and that it generally continues for a longer time until it excites anxiety by its persistence, or in other instances, by the frequency of its return. . . . . It is, however, more common for hœmorrhage to take place either at the menstrual period, or a day or two after its cessation; but though an ill-marked periodicity is generally observable in all hœmorrhages from the womb,—whatever be the cause, and whatever the age of the patient in whom they occur, it is certainly unusual for menstruation in cases of cancer to continue regular in its return. . . . . A few cases occur of a single profuse outbreak of blood, not followed by any return of hœmorrhage, or merely by occasional admixture of sanguineous fluid with the discharge which takes place at other times. . . . . The source of hœmorrhage continues to be the same, after ulceration has taken place, as it was before, and the blood is furnished much

less by the diseased surface than by the whole mucous membrane of the womb. . . . . There is no stronger evidence that the ulcerated surface furnishes but a small part of the bleeding than is afforded by its invariable diminution, often by its complete cessation in the advanced stages of cancer,—while in not a few instances in which the process of ulceration has been most rapid, and the destruction of tissues most extensive there has been, but little bleeding or hœmorrhage, entirely confined to the outset of the disease."

The researches of recent times into the histology of Cancer generally has served by application to improve and systematize the descriptions of special examples previously admitted though vaguely understood. Of this circumstance the subject under notice presents a remarkable illustration. Formerly it was the custom to describe a variety of affections of the os uteri in such a style as to lead the reader to consider each one a separate disorder, having no community with the others. This method and idea caused a natural estrangement of the whole number, and left no settled convictions behind as to the true nature or inherent dissimilarities of the lesions themselves. Such an arrangement was purely arbitrary, and excluded every trace of those happy generalizations that had served to simplify and we may add elucidate kindred topics. The cauliflower excrescence was thus understood to be a specific lesion, and of peculiar development. Since, however, the discovery of the modes of origin and of progression of cancer, we are prepared to understand that cauliflower excrescence is but a variety of the epithelial form of the latter disease. Dr. West accordingly tells us :—"The epithelial cancer of the uterus presents itself under two forms; either assuming the character of a granular outgrowth from the lips of the uterus, or else of an intractable ulceration of their surface. In its most characteristic form, the first variety is the *cauliflower excrescence* of Dr. John and Sir Charles Clarke. But of far more common occurrence are cases which, though essentially the same, present points of difference approximating them to ordinary medullary cancer." He then proceeds to set forth in order the distinguishing anatomical features of the forms of disease to which reference has just been made.

But with all the advantages of modern studies, some uterine affections are still confessedly occult:—to wit, the corroding ulcer of which our author fitly observes;—"Its real nature has given rise to much difference of opinion, and the rarity of the affection has been a great obstacle to the thorough understanding of its nature. There can be no doubt, however, but that it might be classed with rodent ulcers, as indeed it has been by all recent microscopic observers, for like them, its aspect, rate and mode of progress are unlike those of cancer, while neither cancer-

cells nor epithelial formations are present in the adjacent tissues.' Our readers will perceive from the quotations we have made, with what acumen and minuteness the subject is discussed in the work intituled above, and this one is but an exponent of its fellow topics. We are satisfied Dr. W. has executed his task with no ordinary fidelity and ability and whatever fault we may have had with him in the beginning, we have none as we proceed, and we take our leave with feelings of admiration of his industry, and reasons for the strong recommendation of his volume.

ART. XV.—*Diseases of the Skin.*—By Erasmus Wilson, F.R.S. Fourth American from the fourth and enlarged London Edition. Philadelphia, Blancard & Lea; Montreal, B. Dawson; Quebec, Middleton & Dawson. 1857. pp. 649.

From the number of pages it will be seen by those familiar with former editions, that the present has undergone a considerable enlargement, and forms a volume nearly as large again as the dimensions of the edition first issued. A new system of classification has been arranged which has been based upon the cause of the particular disease; such a method, it is conceived, will be less objectionable than the older ones founded upon different principles. The inconvenience that former readers may experience from this alteration, which is an illustration of the uncertain and arbitrary character of classifications generally, will be more than compensated for if the order is one more consonant to the features or peculiarities of natural occurrences, every advance in such a direction being by so much a nearer approach to truth. Cutaneous diseases are grouped together into five genera, viz; into those arising from 1. General Causes. 2. Special External Causes. 3. Special Internal Causes. 4. The Syphilitic Poison. 5. Animal Poisons of unknown origin, and giving rise to Eruptive Fevers. The first genus, as may be expected, is a very extensive one, and comprises many of the most diverse affections, for from "general" causes ensue such opposite disorders, as Erythema, Erysipelas, Lichen, Eczema, Anthrax, Purpura, &c., between which there is not the least specific alliance or inherent resemblance. And we are not sure but some who are not given to dogmatize on controvertible points, will withhold their assent from so widely separating the first and the last genera, as it is by no means a settled matter that Erysipelas, Furunculus, Purpura, &c, accredited effects of "general" causes, are not the results of "animal poisons of unknown origin." Besides the above subdivisions which are instances of diseases

affecting the general structure of the skin, there is superadded a second tribe, the individuals of which affect the special structure of the skin, and in these latter we observe the original design is given up, there being no attempt made to refer them to distinctive divisions according to their causes. They are simply sub-classed according as to whether they be seated in the vascular, nervous, papillary or pigmentary structures, the sudoriparons or sebiparons organs, the hair follicles with the hair, and the nail follicles with the nails. The present edition is enriched by several new chapters, viz; upon Classification, General Pathology of Skin Diseases, their general Therapeutics, Furuncular diseases, and the Diseases of the Nails and Nail follicles. Furthermore, in the words of the author contained in his preface, "To the chapter on Diseases arising from Special external causes, I have added Malis, Ambustio and Gelatio; to the chapter on Diseases arising from Special Internal causes, Scrofuloderma and Elephantiasis; and to the chapter on the Diseases of the Sebiparous Glands, a short article on the Malignant Tubercle of the Skin." We have now endeavoured to mark the principal changes and addenda which characterize this edition, and we feel they are of such a nature as will tend to maintain the reputation of its distinguished author for the scholarship and industry which his previous publications have displayed, while by increasing the value of the original work, they must serve to secure an extension of public patronage. Words of praise, however; upon its general execution, in favor of a treatise so generally esteemed as Wilson "On the Diseases of the Skin," are, we conceive, altogether unnecessary.

ART. XVI.—*The Medical Students' Vade-Mecum.*—A Compendium of Anatomy, Physiology, Chemistry, Poisons, Materia Medica, Pharmacy, Surgery, Obstetrics, Practice of Medicine, Diseases of the Skin, &c.—By George Mendenhall, M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical College of Ohio; Member of the American Medical Association, &c. Fifth Edition revised and greatly enlarged; with 224 Illustrations. Philadelphia, Lindsay & Blakiston; Montreal, B. Dawson; Quebec, Middleton & Dawson. 1857, p.p. 692.

The title page we should say was complete, the work incomplete. Turn any where, right or left, and incompleteness is the order of the page. *E. G.* "Bismuth, U. S. What preparations of Bismuth are used medicinally? The subnitrate or white oxide, it is tonic and antispasmodic Dose 3 to 30 grains in powder or pill." "Hemlock *Conium*, U. S. What is the dose of the Conium Maculatum or Hemlock? Of the pow-

dered leaves 3 or 4 grains; of the extract or inspissated juice of the leaves, 3 grains; tincture, 3 ss. to i. "*Dislocation of the Clavicle* How many ways may the *Clavicle* be luxated? It may be luxated at either end; and the sternal portion in three directions, *forward, backward and upward.* They are all easily distinguished by their peculiar deformity. What is the treatment? The same as for fracture of the same bone." "Chronic Gastritis. What are the Symptoms? They are very similar to the acute form, only less violent and long continued with disordered action of all the functions of the stomach. What is the treatment? It may be treated on the same general principles as the acute." The extracts are complete, the information incomplete. The production is but a cobble and one too of a very sorry kind. If its concoctor and other like cobblers would take our advice, they would give up anatomizing, in such fearfully slicing manner, the poor body and bones of medicine, cease from their raw manglings, and no longer pass off the scanty morsels for the entire subject.

ART. XVII.—*The Practice of Surgery.*—By James Miller, F.R.S.E., F.R.C.S.E. Surgeon in ordinary to the Queen for Scotland; Surgeon in ordinary to His Royal Highness Prince Albert for Scotland; Professor of Surgery in the University of Edinburgh; Consulting Surgeon to the Royal Infirmary, &c. Revised by the American Editor. 4th Edition, from the last Edinburgh edition. Illustrated by 364 Engravings on Wood. Philadelphia, Blanchard and Lea; Montreal, B. Dawson; Quebec, Middleton & Dawson.—1857, p.p. 682.

We believe we have on a former occasion expressed the high estimation in which we regarded Mr. Miller's text book on Practical Surgery, and it now affords us pleasure to be able to renew our favorable opinion; it being always a mark of soundness when time or familiarity breeds no contempt between acquaintances. Intended probably at first as an assistant to the students of his own class, its merits soon recommended it to the attention of students elsewhere, among whom it is, as far as we know, received as a standard authority, clear and learned, trusty and weighty; but not confined to even this large body of aspirants, it soon secured the light of the countenance of even practitioners,—and it is not an insignificant sign of its value to know it has maintained through a series of years the good opinions it first drew forth. No one professing to have a medical library will be without Miller on its shelves.

ART. XVIII.—*The Canada Directory for* 1857-58 ; containing names of professional and business men, and of the principal inhabitants in the cities, towns and villages throughout the Province ; alphabetical directories of banks, benevolent and religious societies, clergy of all denominations, crown land agents, custom-houses and officers of customs, governmental departments and employés, militia, newspapers and periodicals, ports of entry, registrars, post office department, post offices and postmasters, with statements of imports and exports, provincial debt, revenue, expenditure, revenue from canals, trade, population, school acts, tariffs of custom, &c., and railway and steamboat routes throughout Canada. Corrected to November, 1857. Pp. 1544. Montreal: Printed and published by John Lovell. Price $5.

We are rejoiced at the completion of this truly great work. It is, in every respect, a credit to Canadian enterprise. The public spirit of Mr. Lovell in assuming the onerous responsibilities connected with the publication of a work demanding so much labour and expense; the promptitude with which he formed his arrangements, regardless of cost, to bring it to a speedy and successful termination; and the energy he displayed in carrying out those arrangements, are equally deserving of the admiration and thanks of the entire community. It is scarcely necessary for us, we conceive, to advise our readers to come forward to the support of the publisher and purchase a copy ; for the Canada Directory contains such a fund of information relating to our country, that it must certainly be regarded as a book indispensable to every educated family.

ART. XIX.—*Essay on the Insects and Diseases injurious to the Wheat Crops.* By H. S. Hind, Esq., M. A., Professor of Chemistry at Trinity College, Toronto. Pp. 139. Toronto: Lovell & Gibson.

Essai sur les Insectes et les Maladies qui affectent le Blé. Par Emelien Dupont, Ecr., de St. Joachim, Comté de Montmorency. Pp. 38. Montreal: J. Lovell.

Canada, in common with other countries, has suffered so much from the destruction of the wheat crop, by different insects, it was a very proper step on the part of the Minister of Agriculture to offer three premiums—£40, £25, and £15—for the three best Essays on the "Origin, nature and habits,—and the history of the progress, from time to time,—and the cause of the progress, of the weevil, Hessian fly, midge, and such other insects as have made ravages on the wheat crops in Canada, and

on such diseases as the wheat crops have been subjected to, and on the best means of evading or guarding against them." Professor Hincks, of University College, Toronto, and Prof. Dawson, of McGill College, Montreal, were named as a Committee, by the Boards of Agriculture for Upper and Lower Canada, to decide upon the merits of the several essays. Twenty-two essays were received by the Committee; and, having been duly examined, the *First Prize* was awarded to Prof. Hind; the *Second Prize* to the Rev. George Hill, Rector of Markham; and the *Third Prize* to Emilien Dupont, Esq.

The Essay of Professor Hind is a well arranged, elaborate production, and exhibits a familiarity with entomology, as well as careful and extensive research into what has been heretofore observed on the subject on which he writes. That of M. Dupont, while less pretentious, is a very creditable essay, containing a great amount of theoretical and practical information. Every farmer should furnish himself with a copy of these prize essays, study them thoroughly, and put into practice their excellent directions.

THERAPEUTICAL RECORD.

(*Virginia Medical Journal.*)

Collodion in erysipelas.—Dr. Baumann, employs collodion in all cases, and has found it, even in several cases of erysipelas of the face, and in one case of phlegmonous erysipelas of the thigh, highly useful. He first gives an emetic, and then daily applies the collodion to the parts. The recovery is rapid, and no ill consequences have been observed.—*Schmidt's Jahrb.*

Iodide of mercury in acne.—M. Hardy of the St. Louis relates several cases of obstinate acne, to show the great efficacy of the iodide. The following ointment is applied daily, viz: 12 to 15 grains of the protoiodide of mercury, or 2 to 4 grains of the bi-iodide to an ounce of lard. A temporary increase of irritation is followed by progressive amelioration, and even very bad cases yield after from one to three months' treatment. When the indurated form of acne is predominant, and the skin and cellular tissue are greatly hypertrophied, equal parts of the bi-iodide and of lard may be applied every ten days, from four to eight applications usually sufficing. The great pain that attends the application of this last, and which continues for some hours, should, whenever possible, determine us to employ only the weaker ointment.—*Moniteur des Hop.*

Oil of naptha in ringworm (*teigne faveuse.*)—Dr. Chapelle says he has found the following procedure the most successful of any that he has tried :—The hairs are to be cut short, the creamy fluid let out of the pustules, and the crusts removed by linseed poultices. The denuded surface is then to be covered with a thin layer of oil of naptha, over which a flannel compress is to be placed, the whole being secured by an oil silk cap. The application is to be renewed twice a day, first well washing the parts with soap and water ; and the surface of the scalp is to be carefully searched, in order to detect any small favous pustules that may have appeared. These must be pricked with a pin, the matter removed, and the surface covered with the oil. This evolution of pustules is successive, so that the hair must be kept short in the vicinity, that their advent may be watched. This application secures the rapid abortion of the pustules ; but when the scalp is too tender to bear it, it should be mixed with other less irritating oils, of which the *huile de cade* (empyreumatic oil of juniper), is one of the best.—*Gaz. des Hop.*

Perchloride of iron in disease.—M. Deleau says, that after employing this in hemorrhage in general, he has gradually extended its use to uterine hemorrhage, leucorrhœa, gonorrhœa, chancre, vaginal ulceration, and scrofulous affections. After thus trying it during two years in his hospital with eighty beds, he concludes :

1. That the perchloride may be employed internally or externally without any danger.
2. That it is the most powerful hæmostatic known.
3. That it especially exerts its therapeutical effects on the mucous membranes, as in gonorrhœa, leucorrhœa, bronchial catarrh, etc.
4. That it is an antisyphilitic.
5. That it is a powerful agent in scrofulous disease.—*Comptes Rendus.*

PERISCOPE.

Phthisis Pulmonalis.—On the presence of elastic pulmonary fibres in the sputa of phthisical patients, as a certain sign of the existence of a vomica. By J. L. C. Schroeder Van Der Kolk, Professor in the University of Utrecht. Translated from the Dutch by William D. Moore, A.B., M.B., T.C.D., Honorary Member of the Swedish Society of Physicians.*

* Several years have elapsed since I first became acquainted, through the medium of Herr Ekströmer's Swedish translation, published in the *Hygiea* for January, 1850, with the valuable observations of Professor Schroeder van der

Physicians have long felt the importance of discovering a certain sign by which the sputa of a phthisical patient might be distinguished from those coughed up in a chronic catarrhal inflammation of the lungs; and, as a copious formation of pus occurs in the former, the attention of observers has been chiefly directed to the acquirement of an adequate distinguishing mark between purulent sputa, and those containing only thickened mucus. It is well known that even Hippocrates* has stated that pus, when burned, emits a fœtid odor, and that it sinks in sea-water, while mucus does not.

This inquiry, not only as to whether it may be possible in reference to sputa, to ascertain whether they consist solely of condensed mucus, or contain pus, but also whether we might be able in them to distinguish the matter of pulmonary tubercle, and so be in a position to decide on the existence of a vomica, and to recognize phthisis pulmonalis in its commencement, has given rise to very many different experiments and propositions, of which, unfortunately, not one has, as yet, led to any certain result.

Formerly it was attempted to discover the difference chiefly by chemical means; and it is well known that our Brugmans thought he had attained this object, inasmuch as he believed that pus was capable of undergoing acid fermentation, while mucus was not.† But the mistake was here committed of seeking a distinguishing mark between pure pus and pure mucus, and endeavoring to make this applicable to purulent mucus. Pure pus is, however, so easily discriminated from pure mucus by the eye alone, that in ordinary practice, we need no chemical aid for this purpose; while on the contrary, experience shows, that the several means of distinction are wholly useless, when applied for the purpose of diagnosing with certainty, pure thickened mucus from mucus in which pus is at the same time present, since, in the several degrees of admix-

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Kolk, upon the above important subject. These observations have been briefly alluded to in the 22d volume of the *Dublin Quarterly Journal of Medical Science;* and very fully in the second volume of the present series of this Journal, in a review, by Dr. Banks, of Dr. Biermer's work, "Die Lehre vom Auswurf;" but considering it desirable that we should possess a translation *in extenso* of the memoir in question, in the absence of any information as to where the original was to be found, I applied to the distinguished author himself, and I am glad to avail myself of this opportunity of expressing my thanks to him for the kindness and readiness with which he at once sent me the last remaining copy of his essay, which, it appears, was originally published in the *Nedarlandsch Lancet*, second series, first year, seventh part.—Translator.

* *Coacæ prænot.* Ed. Linden, T. 1, p. 255.

† Brugmans, *Dissert de Puogenia*, p. 215. Gron. 1785.

ture, the tests are not sufficiently accurate. I shall here mention only Grasmeijer's test,* which longest maintained its ground, namely—mixing pus with a solution of carbonate of potash, whereby it is converted into a gelatinous mass, while no such change is produced with mucus. Or Huenfeld's† proposal, to boil the sputa with sal ammoniac, by which they were said to be coagulated, if pus were present. Neither of these methods, however, affords a certain test. Equally little reliance can be placed on the fact advanced as a test by Gueterbock,‡ that pus, in virtue of its fatty contents, burns with a flame, whereby, he says, we may distinguish purulent sputa from any others; for this character is by no means sufficiently well marked, and fat is also met with in thick bronchitic sputa. I have myself found the mucus on the inner surface of the finest ramifications of the bronchi, in an otherwise perfectly normal lung of an elderly woman who died of hydrothorax, tolerably largely mixed with fat, although no trace of inflammation was perceptible in this case. Brett states that he has found acetic acid to be capable of coagulating mucus, but not pus. However, as mucus is always present in purulent sputa, this agent will not enable us to distinguish the latter. The subject will be found more fully treated of in the works of J. Vogel,‖ Gueterbock,§ and others.

Subsequently another method has been proposed, and it has been thought that the improvement of the microscope should furnish a means of distinguishing, with greater certainty, pus from mucus. This inquiry has given rise to a great number of essays on the form in which pus exhibits itself under the microscope, and on the difference between pus and mucus. Thus, after the discovery in pus of peculiar, more or less granular corpuscles, it was thought that through these the presence of pus could be accurately determined; and Vogel asserts, in his above-mentioned work, that we can, with the aid of the microscope, even in a mixture of pus and mucus, decide, of each smallest particle, though invisible to the naked eye, whether it is pus or mucus.¶ This writer, however, seems not to have observed that the same corpuscles occur also in inspissated mucus, and are not wholly absent even in healthy mucus from the mouth. Thus I have also found them, though in small quantity, in the saliva. They agree so closely with the corpuscles present in pus, that they cannot indeed, be distinguished from the latter; though they may be somewhat more transparent—yet are they so

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**Abhandl. v. Eiter*, etc. Gött. 1798, p. 59. †See Berzelius, *Thierchemie*, p. 599.
‡Gueterbock, *De pure et granulatione*. Berol., 1837, p. 25.
‖Vogel, *Ueber Eiter*; *Eiterung*, etc. Erlangen, 1838. pp. 96 et seq.
§Loc. cit., p. 3 et seq. ¶Loc. cit. p. 108.

like in form and size, that when mixed with pus corpuscles, it is impossible to distinguish them, and both, therefore, appear to belong to the same kind of formation. Simon* gives a tolerably good representation of them, taken from nasal mucus and thin bronchial mucus. Gluge† says that mucus-globules are always one-fourth larger than pus globules, and that they never exhibit any points (granulations ?) I have often met them of the same size as pus corpuscles, and always found them granular. Henle‡ makes the same figure represent both pus and mucus corpuscles.‖ so that it does not in fact appear whence they are taken.

Buhlmann§ also acknowledges that these mucus corpuscles render the idea of pus globules uncertain and doubtful. He considers them, however, to be exudation globules, arrested at a certain stage of their formation, and says that they occur not only in nasal and in bronchial catarrh, but also very plentifully in incipient tubercle.¶ These inflammatory globules are, however, usually larger, and exhibit a more granular appearance. Vogel gives a very good representation of them,** and found them also in tuberculous matter taken from the lungs.†† In inflammation I have often met them ; they can very easily be distinguished from pus and mucus globules.

If we now put together the different modes in which pus globules have been described and delineated by different writers—of which Buhlmann‡‡ gives a good review in his above-mentioned work—that they occur also in a slight catarrh, and that even in chronic catarrh, the purest pus may be secreted, entirely agreeing with phthisical sputa,‖‖ we shall be convinced that they cannot be with any certainty employed as a distinctive mark of suppuration, or of an incipient vomica ; so that in my opinion they incorrectly bear the name of pus globules.

Other writers have, however, thought that in the sputa of phthisical patients, tubercular matter can be recognized under the microscope, and that thus a decision can be arrived at as to the existence of tubercular suppuration in the lungs, and the formation of an incipient vomica.

**Med Chem.*, 1842. T. 2, st. 2, fig. 15 and 16, p. 310.

† *Anat. micr. Unters.* H. 1. Mind. 1838, p. 26.

‡ *Allg. Anat.* p. 155, etc., tab. v. fig. 22.

‖ *Allg. Anat.* p. 939, and explanation of the figures, p. 1025.

§ *Beyträge zum Kenntniss der kranken Schleimhaut der Respirations organe.* Bern 1843, p. 30.

¶ Loc. cit. p. 43.

** J. Vogel, *Icones histologiæ pathology.* Lips. 1843, tab. iii, fig. 13 and 14, B.

†† Loc. cit. tab. xv., fig 3. c.

‡‡Loc. cit. p. 19 et seq., tab. i. fig. 14, 18—20 : Tab. ii, fig. 1—11, 20, 21; Tab. iii, fig. 1—6.

‖‖Buhlmann, loc. cit. p. 39.

Vogel has represented as such, a granular mass which often occurs in the sputa of phthisical patients, and which he considers to be the product of tuberculous matter. This is also found in tubercles in dead bodies; and on this Vogel* grounds his supposition. Buhlmann,† however, correctly observes, that this granular mass occurs also in chronic catarrh, and is therefore far from characteristic. It consists, according to him, of coagulated albumen globules, which have united into groups. Gluge‡ also describes the same, and says he has constantly met this granular mass, with compound inflammatory globules and pus corpuseles, in tubercular pus. In the same manner, Vo,‖ gel in his late work, gives a representation of tubercular matter, taken from a tubercle. This consists, according to him, of smaller cells, larger inflammatory globules, and a granular mass.

As, however, these forms seem to occur as products of inflammation in sputa, where only chronic catarrh is present, they can be of no use in leading us to a conclusion as to the existence of tubercular matter.

Gruby§ appears to have fallen into a much more serious error; thus, he describes as characteristic of tubercular matter, globules said to occur in the sputa, with concentric spiral rings (sphæræ lenticulares,) which are nothing else than badly drawn starch granules from food which has remained between the teeth, or in the throat. Of the same nature are the expectorated pulmonary cells represented by him, which have nothing in common with the form of pulmonary cells, and by their regular rhomboidal shape at once betray themselves as vegetable cells: so that I am very much surprised that Buhlmann¶ has not recognized them as such, and that he has drawn them again. He says he has seen something of this kind, but that they must have been very much altered by the suppurative process; wherefore he expresses some doubt as to Gruby's beautiful figures. Gruby's sphæræ lenticulares he could not find; and he states that he is quite uncertain as to what Gruby has seen,** although Simon†† a year before, discovered that they were nothing but starch granules, which he said immediately turned blue by the addition of iodine. Dr. Gobée has, however, lately described them again at

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*Vogel, *über Eiter*, etc., p. 112, fig. 10. †Loc. cit. p. 59.

‡*Anat. Microscop. Unters*, Heft. 1. Minden, 1838, p. 21, tab. xi., fig. 5. Heft. 2, p. 181.

‖*Icones Histolog. path.*, tab. xv., fig. 111.

§*Gruby, Observ. Microscop.* Minden, 1840. See also Buhlmann, loc. cit., tab. i., fig. 10, 12, 15, 16.

¶Buhlmann, l, c., p. 65, tab. i., fig. 17. **Buhlmann, p. 59, et seq.

††Simon, *Med. Chemie.* Berlin, 1842. Bd. ii. Heft. 2, p. 316, note 2.

considerable length, and has given various drawings of them.* He says he once saw them in the sputa of a peripneumonic patient, but took them for something accidental. In actual tuberculosis, he had never seen them. We may safely look upon them as starch granules, having nothing in common with the sputa of tubercle.

Gerber describes many kinds of tuberculous matter, as albuminous or unorganized, fibrous and hyaline tubercle, cellular tubercle, fibrocellular tubercle, and, finally, melanotic and organized tubercle. Buhlmann† observes on this point, that in numerous examinations of tubercle, he found no other constant product than albuminous globules, or granules. The various kinds described by Gerber he could not find; neither have they occurred to me. Dr. Gobée says he has observed such organized tubercular matter in the sputa of a patient; and he represents oblong cells, which he thinks are elementary cells, in their transition to form fibres,‡ and actual fibres, having most conformity to recently developed connective fibres.‖ If we examine an air tube and its bronchial ramifications in a healthy lung, we shall soon find that the oblong, boat-shaped, bottle, and thorn-shaped cells of Dr. Gobée are nothing else than more or less destroyed portions of the ciliated epithelium with which the air passages are lined even to their finer ramifications. Of the same nature appear to be his recently-formed fibres, differing completely from the fibres of which I shall hereafter speak. Dr. Gobée, however, thinks that out of the albuminous and fibrinous matter exuded in the lungs, his oblong cells are formed as elementary cells, which pass into actual connective tissue, whereby an obstruction, and through the new formation of connective tissue, an actual enlargement of the pulmonary vesicles must take place, giving rise to asthmatic phenomena.¶ We can, however, in the present state of our knowledge of the development of connective fibres, scarcely admit their new formation in the sputa.

I am also greatly surprised to see that Dr. Gobée states as a peculiarity, the formation, after the addition of acetic acid, of a great quantity of long, thick threads, which so increased on further addition of the same re-agent, that the entire presented the appearance of a membrane composed of connective tissue. It is, however, a well-known fact, that mucus solidifies on the addition of acetic acid, and thus assumes under

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*Dr. C. Gobée, *Tijdschrift voor wetenschappelijke Geneeskunde*, D. ii., st. ii. pp. 108, etc.

†Loc. cit. p. 60.

‡Gobée, loc. cit. p. 113, fig. D.

¶Loc. cit. p. 114, fig. D.

‖Gobée, l. c., p. 144, et seq.

the microscope the form of thick transparent threads, and even membranes, which I have often also observed in nasal mucus, which have no reference to the formation of tubercle, and possess no peculiarity, except that they may easily mislead an incautious observer.

Lebert* gives, as a peculiar characteristic of tubercular matter, the presence of irregular oblong corpuscles of 0.05 millimetre, possessing no nuclei, as is shown by adding acetic acid, and which, together with many molecular granules, are agglutinated by a clearer matter. In order to see these well, the tubercular corpuscles should be thinned with a little water, as otherwise they are too compact. They are said to afford the most certain distinctive mark of tubercular matter, as pus-corpuscles possess nuclei, and measure, on an average, † 0.01 of a millimetre in diameter. When these tubercles soften, the tolerably solid matter which held the corpuscles agglutinated in the tubercles, begins to grow fluid ; the tubercular bodies become free, enlarge, and assume a more spherical shape.‡ If pus globules intervene, these come, according to him, not from the tubercular mass, but from the surrounding parts. The tubercular globules, however, rapidly dissolve, especially if they are mixed with pus ; ‖ and this is, according to Lebert, the reason why they are scarcely ever met with in the sputa, in which, he confesses, he has never, with certainty, observed them. § Hence, it follows, as a matter of course, that these corpuscles, at first described by Lebert as so characteristic, have no diagnostic value ; and he himself also acknowledges that the microscopic examination of the products of expectoration in phthisis, can contribute nothing to clear up the diagnosis, especially when the disease is still in the incipient stage.

From all this we see that neither chemical re-agents, nor the microscope, have furnished us with the means of distinguishing pus from mucus in sputa, of recognizing the presence of pus in mucus, or of demonstrating that of tubercular matter.

Having been, however, for some time engaged in the examination of the sputa of phthisical patients, I discovered therein peculiar fibres, which, by their special course and characteristic form, I recognized as elastic fibres surrounding the air cells, and therefore appearing to me calculated, in the absence of any other distinguishing mark in the sputa, to afford a very characteristic sign of the existence of a vomica. Having thus had my attention directed to the point, I found them in all the sputa of phthisical patients which subsequently came under my observation, and, indeed, in the most opposite stages of the disease.—*See Ranking*, 70—5.

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* Lebert, *Physiologie pathologique*. Paris, 1845. T. 1, p. 352, pl. viii., fig. 1, 2.

† Lebert, loc. cit., p. 356,358.

‡ Lebert, loc. cit., pl. viii., fig. 4 and 5.

‖ Lebert, l. c. p. 366.

§ Ibid. p. 413.

When we consult the observations of other writers on this subject, it is strange that the presence of these fibres has not attracted more attention. Investigators in general seem to have given themselves more trouble, though unsuccessfully, to look for certain distinctions between mucus, pus, and tubercular matter, than to examine closely the several forms and peculiar occurrence of these elastic fibres; and I am greatly surprised that, although the latter have been observed by some writers, no one has given an exact representation of them as they variously occur in the sputa. Simon appears to be one of the first to mention their presence in the sputa of phthisical patients; but he says no more on the subject than that he has seen more or less numerous fat globules, and some very fine tubes or fibres ramifying like vessels; while the representation he gives of these fibres is so incorrect, as rather to give rise to the suspicion that something had been accidently mixed with the sputa observed by him, than that he had seen real elastic fibres of the lungs.* The plate given by Simon, of the tissue and vessels of the lungs, appears to represent nothing else than epithelial cells and fat.† Gluge, ‡ to my surprise, says he never met fibres in tubercular matter. The drawings given by Vogel, in his excellent *Icones Physiol. Path.*, Tab. xv, xvi, and xvii, are important, where he represents these elastic fibres, as they occur in tubercles, taken partially undissolved from the lungs of a dead body, very well, but perhaps on rather too large a scale. He does not, however, represent them as they occur in the sputa, where their form and direction are often very different from what they are in the pulmonary cells. Thus in the sputa they are often broken up into smaller portions; yet they always retain their peculiar distinctive marks. Vogel ‖ observes that the occurrence of such dead pulmonary fibres in the sputa, is an equally certain and important sign that tubercular destruction of the pulmonary tissue has already set in. He does not, however, say whether their occurrence is constant, or whether they may also be absent in the sputa of phthisical patients.

Buhlmann, too, speaks of these fibres, and says that we meet them with areolar tissue in the sputa, especially in phthisis laryngea, or also in a vomica; that, however, they there occur more rarely, because they form the deepest layers of the abscess, which do not separate so early, and that we can find them much more easily by scraping with a scalpel after death. When, however, they occur in the sputa, they are the most certain sign of a suppurative process. But it is, he adds, self-evident, that we must often examine all parts very accurately, in order to find them; for, except in case of death of the lung, they occur extreme-

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*Simon, *Med. Chem.*, T. ii., p. 316, fig. 18.
† l. c., p. 316, fig. 19.
‡ *Anat. microscop. Unters.*, Heft 1. p. 21.
‖ *Icones*, p. 67.

ly rarely. He says he has often found filaments of areolar tissue in syphilitic ulcers of the throat, and observes that we often meet them also in phthisical patients, especially when a tubercle has very rapidly softened and forms a spreading cavity.* He does not give a drawing of them. It is evident that he has confounded these elastic fibres with filaments of areolar tissue, which latter, however, appear to occur in the pulmonary cells in less number than the elastic fibres, and are easily distinguished from them, inasmuch as they become very transparent in acetic acid. The elastic fibres in the pulmonary cells, are, as we shall hereafter endeavor to show, separated from the cavity of the cells only by an extremely thin and weak membrane.

Lebert also speaks of these elastic fibres, and says that we sometimes, in the sputa of phthisical patients, meet very well marked pulmonary fibres; and that this is not unusually the case when there are cavities. That, consequently their presence is an important aid in diagnosis; that they possess so peculiar a form that they can be confounded with no other fibres, particularly not with those of the trachea, which, might occur therein; that as these pulmonary fibres can occur in the sputa only when the pulmonary tissue is ulcerated with tubercular matter, they afford an infallible sign of the existence of cavities (*cavernes*). He, however, also states that the elements of tuberculous sputa possess no specific character, and that it is only in some cases that the pulmonary fibres indicate the presence of tubercles; whence he infers that we are constrained to admit that the microscopic examination of the products of expectoration in phthisis contributes nothing to the elucidation of the diagnosis, especially when the case is one of incipient phthisis. But if the disease be confirmed, it is evident, he says, that the sputa lose their value in this respect, inasmuch as other physical and rational signs then exist, which enable us to establish the diagnosis. † He does not delineate these fibres as they occur in the sputa; but he gives a drawing of them as they are met with in a tubercle taken out of the lungs, ‡ which drawing is, however, less characteristic than that given by Vogel.

Rainey, ‖ in his recently published beautiful essay on the minute structure of the pulmonary cells, and the formation of tubercle, makes no mention of the elastic fibres in sputa. He merely says that the expectoration is in great part derived from the mucous membrane of the bronchial ramifications, and very probably cannot be distinguished from

* Buhlmann, l. c., p. 64 et seq. † Lebert, l. c. T. I., p. 413.

‡ Ibid, l. c., pl. viii, fig. 11, B.

‖ G. Rainey, on the Minute Structure of the Lungs, and on the Formation of Pulmonary Tubercle, in *Medico-Chirurgical Transactions*. London, 1845, vol. viii, p. 595.

that in an ordinary case of bronchitis; but he believes that when the tuberculous matter is dissolved and expectorated, it can be with certainty recognized by no other sign than the debris of the membrane internally investing the cells.

From the foregoing it appears, that of all the signs in phthisical sputa of the existence of a vomica, none remains except the presence of elastic fibres when these appear. The question therefore, is, do these occur with sufficient regularity to serve as a certain indication of the existence of a vomica?

That they are by no means of such rare occurrence as several writers state, I have convinced myself from my own observations, inasmuch as after I had once discovered them, I have never missed them in any sputa of a phthisical patient, and I have constantly found them in greater or less quantity. The question is, therefore, do these fibres occur only when phthisis is already far advanced, and has produced great destruction; or are they present in the sputa from the first formation of the vomica, so as to indicate with certainty the existence of a vomica from its very commencement?

On this important subject I believe I may express my conviction, that, as I shall endeavor to show, these elastic fibres exhibit themselves in the greatest quantity precisely in the beginning of phthisis, and in the first formation of a vomica, and that they belong to the most certain signs we possess of the presence of a vomica. Subsequently, when the vomica has increased to a considerable cavity, they usually occur more sparingly and less distinctly in the sputa, and this appears to me to be one of the principal reasons why many writers have either not observed these fibres, or have taken but little notice of their presence.

This struck me particularly in the case of a young man of phthisical disposition, who had for more than a year suffered from a severe catarrh, and to whom I was this summer called in consultation. On the first examination I made, I was soon convinced of the existence of an inflammatory process in the lungs; the pulse was usually above 100 in the minute; the cough was very severe; the sputa were more or less red colored and globular, though for the most part floating; bodily exercise, as well as continued speaking, excited the cough; night sweats began to increase from time to time, and on any great excitement the peculiar flush appeared upon the cheeks. Occasionally he complained of some pain in the right side between the seventh and eighth ribs. On as accurate as possible, and repeated examination, the ordinary respiratory murmur was distinctly heard in both lungs; percussion yielded a particularly dull sound nowhere except pretty low between the seventh and eighth ribs on the right side. On the application, however, of leeches,

and of an issue to the affected part, these inflammatory phenomena, probably the consequence of a slight pleuritic affection in that situation, with a severe bronchitis in the finer pulmonary ramifications, disappeared ; the dulness on percussion in the part became less, and after a repetition of the leeches altogether ceased ; deep respiration became entirely free ; and under the use of cod-liver oil, with pills containing extract of lactuca virosa, the phenomena began so far to improve that the nightly perspirations were completely checked, the cough diminished, and the pulse finally returned to about 80. The expectoration of globular and occasionaly red colored sputa, however, continued, though in diminished quantity. After a couple of months the cough began to be more violent, in consequence of renewed colds and an attack of catarrh ; the sputa again acquired a less favorable aspect, and in great part sank in water, and the pulse once more became quicker. The examination of the chest now showed that between the second and third ribs of the right side, the sound on percussion was somewhat duller ; no pectoriloquy could, however, be discovered ; mucous râle alone was heard, and that with difficulty. Leeches were now again applied, and the issue was moved from below up to the more affected part. Now, for the first time, examining the sputa under the microscope, I found the pulmonary fibres above described in tolerably large quantity, which still further convinced me of the danger the patient was in ; however, under the treatment, all the phenomena again diminished, the pulse sank once more to 80, the cough became easier, and the inflammatory symptoms decreased. But as the sputa continued pretty copious, I gave twice a day, in addition to the other remedies, and the occasional daily use of flax-seed tea, lime-water and milk ; this the patient bore very well, and soon after the quantity of expectoration began remarkably to diminish, the nightly perspiration entirely ceased, the cough lessened, deep inspiration was unattended with inconvenience, and exercise produced less violent coughing. I requested a friend, a very experienced auscultator at———, to examine the patient accurately, during a short stay there, particularly as he had seen him a year before, and had then found his chest to be in a perfectly normal condition. I shortly after, in the beginning of December, 1845, received the following answer : " In consequence of your request that I should communicate to you the results of my examination of the patient, I have examined him during his stay here. My first and principal object was to ascertain for you the phenomena observable on percussion and auscultation. Both sides of the chest appeared to me to be equal in form and circumference ; percussion on the left side presented no abnormity ; the right side was not so easily examined by percussion (on account of the issue). I have, however,

so far as was possible, without putting the patient to pain, percussed the entire of the thorax, including the seat of the issue. Though I paid the greatest possible attention I could not discover any dulness; I can at least positively assert, that the sound in the supra-clavicular region was normal. Whether a dull sound should have been heard if the seat of the issue had been struck harder, I cannot decide. On auscultation, the respiratory murmur was normal, both anteriorly and posteriorly. On neither side of the chest could anything pathological be discovered posteriorly, while the respiration was suspended. The heart's impulse was not transmitted farther or with more force through the pulmonary tissue, than is the case in healthy individuals. At the seat of the issue I immediately found the râle described by you. The sound was unmistakeable, and was circumscribed in a small space as a mucous râle. I need not say that I did not confine my examination to what I have here communicated, but I wish, in one word, to add, that the form, color, and quantity of the sputa appeared to me only too decidedly to confirm the suspicion of the destruction of a portion of the lung.

"On the principal point, therefore, my examination gives no other result than yours. This result is in itself, certainly not particularly satisfactory, as it affords every reason for assuming the presence of tubercular softening." (I had informed my friend of the existence of elastic fibres in the sputa). "If we, however, take into account the degree and extent of the local affection, the slight disturbance of the physiological function of the organ, and the favorable condition of the general system; if we, at the same time, recollect the slow progress of the disease, which probably now dates from a year and a half back; if we add to this, that some general phenomena had, in the space of time that he was under my care (above half a year—he had previously used no remedies of any importance,) even taken a turn for the better, the prognosis will perhaps be somewhat more favorable. I recollect your expression on this point in your former letter, that tubercular softenings, as small vomicæ, heal more frequently than is usually supposed." Thus we not unfrequently find in the lungs cicatrices of small vomicæ which had previously existed.

Hence, therefore, it appears certain that phthisis had in this case as yet made no great progress; all the phenomena of the disease were wanting except the cough and the presence of elastic fibres in the sputa, and according to a report communicated to me some days previously by the same physician, the patient was in better condition and stronger than he had been a year before, although he still was thin. The so-called physical signs of phthisis, the results of percussion and ausculta-

tion, yielded nothing certain, and the mucous ronchus, although an unfavorable sign, is surely no proof of the existence of a vomica, as it is also often present in bronchitis when the bronchi are in any degree filled with mucus; nevertheless, exactly at this time, the quantity of elastic fibres visible in the sputa was so excessively great, so that they spread continuously over the entire field of vision of the microscope. Since this time, under the continued use of the same remedies, the cough has very much lessened, the sputa have diminished in quantity, and the elastic fibres begin to be fewer in number, so that, in fact, the prognosis is now more favorable, particularly since the issue has been applied upon the affected part, and the use of lime-water was commenced. It, however, appears that where the physical signs yield uncertain results, and do not decidedly indicate the existence of a vomica, the presence of these pulmonary fibres in the sputa plainly prove that the process is not as yet wholly arrested, and that the wasting of the pulmonary tissue progresses, so that we might hence infer that this sign is really more certain than those afforded by auscultation and percussion, and that it is eminently worthy of the attention of physicians.

This will become still plainer if we add to the foregoing a remarkable case given by Buhlmann,* of a patient in whom the sputa were exactly like those of a phthisical person, and were very copious, so much so, that he brought up, with the greatest ease, whole spoonfuls of perfectly purulent fluid, just as if a considerable vomica had existed ; at the same time, pectoriloquy, cavernous respiration, etc., were heard in the dilated bronchi ; the microscope exhibited the most perfect and unmistakeable pus, and no doubt was entertained of the presence of a vomica, while dissection proved that no abnormity existed but dilatation of the bronchi, without either vomica or ulceration of the mucous membrane, consequently no elastic fibres could be found in this case.—*Dublin Hosp. Gaz., Sept.* 1857.

On the Physiology of the Human Ear. By W. Kramer, of Berlin.—Our knowledge of the physiology of the auditory apparatus is still very incomplete, partly on account of the difficulty of experimenting on the organs of hearing, and partly on account of the imperfection of the science of acoustics. We are happy, therefore, to record the results of the investigations of Dr. Kramer, (Deutsche Klinik 1855,) whose vast experience in the treatment of aural affections is universally known. In reviewing the researches of his predecessors, this author points out

*l. c., p. 39

the impossibility of determining what takes place in the living ear from experiments on inert matter. His own experiments have been made upon the ear itself, in the healthy and diseased states. It would be out of the question for us to reproduce the details of these experiments; we must be satisfied with the author's conclusions :—

1. The cartilage of the ear conducts more than a third of the sonorous waves which reach the membrana tympani.

2. The concha is the most important part of the auricular cartilage.

3. The cartilage of the ear, in its natural position, simply receives and conducts the sonorous vibrations to the auditory passage.

4. The cavity of the auditory passage transmits about 500 times as many undulations as the solid parts enclosing it.

5. The curvatures of the meatus and the cerumen have no influence on the sonorous vibrations.

6. These arrangements serve to protect the canal and the membrana tympani from external agents.

7. The membrana tympani transmits the sonorous undulations in due quantity and quality, only while its structure is normal.

8. The membrana tympani also serves as a protection to the drum.

9. The ossicula have but little agency in transmitting the vibrations of members of the membrana tympani to the labyrinth. Their office is rather to support the membrane between two strata of air.

10. The membrane of the fenestra rotunda is designed especially to transmit to the labyrinth the vibrations of the tympanal cavity.

11. The mastoid cells are of trifling acoustic importance.

12. The Eustachian canal is an open tube. (Dr. Toynbee had announced a contrary opinion.)

13. Through this tube the air of the tympanum is renewed, and the sero-mucous secretion of that cavity eliminated.

14. Hearing is not entirely destroyed by the absence of the fenestra rotunda and the loss of the liquor cotunnii.

The Microscope in the Diagnosis of Consumption.—It is well known that the attention of microscopists was long since directed to the investigation of the sputa in suspected phthisis, and that but little, if any thing of a practical result was obtained, for a long time, at least, by the most competent observers. In the proceedings of the Harveian society, published in the London Lancet, July 11, 1857, there is an interesting paper by Dr. Theophilus Thompson upon the use of the microscope in diagnosticating tuberculous disease. After mentioning the formerly adverse evidence of Rainey, Addison and Bennett, (the latter of whom,

however, "has lately added his testimony to the value of the microscope" in these cases,) Dr. Thompson refers to the experiments of Dr. Andrew Clark, and to his demonstrations at his lectures at Haslar, which enabled him to establish, as he believes, "the real microscopical indications of tubercular sputum."

Six cases are cited by Dr. Thompson, and these give both positive and negative evidence of the value of the wonderful instrument which has, of late years, done so much to advance pathological investigations. In one instance the decision of the microscope triumphed over "the gloomy prognostications which an accomplished auscultator had perseveringly maintained." In still another, "doubtful signs" were confirmed, and the diagnosis of "slight tubercular deposit, tending to restoration, was confirmed by the result."

The rapidity of progress of the disease is, according to Dr. T. capable of being pretty accurately gauged by means of microscopic scrutiny.

We subjoin certain of Dr. Thompson's diagnostic deductions and data.

"When tubercular deposit is present in the pulmonary vesicles, there may be seen, contrasting with the usual epithelial cells, some which are dark, swollen, spherical; some more advanced, larger, and misshaped; others shriveled or burst, and extruding nuclei, which nuclei, when enlarged, correspond with the 'turbercle corpuscles' of Lebert." * *

"The general moleculo-granular appearance (to which his attention had been originally directed, and which he much regretted having erroneously figured in his 'Clinical Lectures') was not conclusive; the sputum which is really characteristic, containing isolated masses of molecular granular material, and having interspersed corpuscles of various forms, overgrown or jagged, and setting free nuclei; the various proportions of pus, or fat, or blood, giving collateral indications of the amount of surrounding deterioration in the lungs; while amongst evidences of rapid progress might be specified the appearance of large and numerous areolar meshes, still retaining their adhesion and elasticity. In chronic cases, portions of this tissue appear, inelastic, teased out, and broken down, in consequence of long imprisonment, whilst a diminished proportion of fat, and the appearance of cholesterine plates, and still more of earthy particles, were often indicative of a mode of restoration."

It is certainly desirable that further investigations, in this direction, should be made. Whatever can aid us in detecting the early presence of so formidable a foe, is of inestimable value. If the microscope can antedate the ear, we may hope to steal a march upon the adversary. At all events, with so many zealous cultivators of miscroscopy let no opportunities of this sort escape examination.—*Boston Journal.*

Notes on Fermentation.—M. Berthelot has found that when mannite is exposed, together with chalk and casein (cheese), to a temperature of 104° F., a large quantity of alcohol is produced, while hydrogen and carbonic acid are evolved. Lactic acid is also produced. Almost all the nitrogen of the ferment escapes in the gaseous state. No formation of yeast cells could be detected. All animal tissues and nitrogenous substances produced the same effect as casein.

Dulcin, under the same conditions, gives a large amount of ordinary alcohol.

Sorbin sometimes yielded alcohol, but always lactic acid.

Glycerin yields some alcohol, and M. Berthelot considers this fact proves that there is a great similarity between glycerine, mannite, and the sugars, which are directly susceptible of fermentation.

Under the same conditions, cane suggar, starch sugar, milk sugar, gum, starch, and beer yeast were found to yield a certain amount of alcohol, the production of which was not hindered by the presence of some salts or ethereal oils which are considered to prevent fermention.

In the case of sorbin, milk sugar, and starch, no intermediate products could be detected at any time in the fermenting liquid.

In the alcoholic fermentation of mannite, dulcin, and glycerin, in the presence of carbonate of lime, the production of sugar, analogous to glucose, could not be detected. These three substances remain unaltered in contact with animal substances, when the carbonate of lime is not added.

It is only in some instances that traces of alcohol are produced. But when a solution of mannite or glycerin is left in contact with fresh membranes, especially those of the testicle and pancreas, sugar similar to glucose is often found in the liquid after some weeks. This sugar is directly fermentable, and precipitates suboxide of copper from the alkaline solution of tartrate of copper. The quantity of sugar is much greater than that of the nitrogenous substance that passes into solution.—*Idem.*

Colored Copper Foil.—Dr. Kŏnig states that colored foils may be prepared by silvering copper foil on one side, and then coating the silver surface with a solution of gelatine, colored with some transparent pigment, such as cochineal.—*Idem.*

The Actual Cautery in Cases of Diseased Joints.—The employment of the actual cautery in certain cases of diseased joints, appears to be decidedly gaining favour in the London hospitals. It is, as many of our readers well know, a great favourite with Mr. Syme, of Edinburgh, Mr. Erichsen not unfrequently employs it, and thinks highly of its advan-

tages; and Mr. Moore, of the Middlesex, assures us that in numerous cases under his care, and that of Mr. De Morgan, the benefits obtained from it have been most marked. The cases for which it appears best adapted are those of advancing disorganisation attended by severe pain. The gnawing pain, nocturnal startings, &c., will often cease as if by magic, after the use of the cautery, and the patient's general health, as might be expected, greatly improves. We recollect, some years ago, hearing Mr. Green remark at the bedside of a case of hip-joint disease in St. Thomas's, that the result of his experience regarding the use of setons, &c., had been, that the degree of pain measured the necessity for their employment. When severe pain existed, then they were very useful. This quite tallies with experience respecting the actual cautery. The mode of using the latter is to pencil over the surface lightly with many lines, the patient being, of course, under the chloroform.—*Medical Circular.*

Good Effects of Guaiacum in Cynanche Tonsillaris.—Dr. Brinton has been treating several cases of cynanche tonsillaris at the Royal Free Hospital, on what he informs us has been his usual plan for many years—a plan so simple and so efficacious as to deserve mention. He regards the tonsils as an offshoot of the intestinal canal, and considers that not only is constipation, in most cases an element of the malady, but that, on the above view, the inflamed structures are best relieved by free purging, and perpetual gargling and fomentations with hot water. For the first of these indications he relies chiefly on powdered guaiacum, which he gives in large (one scrupule to one drachm) doses, every four hours; often in combination with opium, aloes, and jalap, and suspended in mucilage. He finds that, if commenced tolerably early, this treatment generally averts all abscess, and even later, rapidly removes the malady, while it allows of a rapid recovery, very unlike the long convalescence which often follows bleeding, blisters, and tartar emetic.—*Lancet.*

A new mode of treating Saccharine Diabetes.—M. Piorry is of opinion that sugar is indispensable to the maintenance of life (he founds this opinion upon the researches of MM. Dumas and Cl. Bernard), and on this account he thinks that diabetic patients ought to be supplied with sugar, and substances which are transformable into sugar, in order that they may repair that unnatural waste which is consequent upon their malady. With this view, he has brought the following case before the French Academy of Medicine:

Case.—The patient is described as being under M. Piorry's care in La Charité (No. 19 Salle St. Anne), and as suffering from diabetes, with

very copious secretion of sugar. All the viscera were sound, with the exception of some slight hypertrophy of the spleen. From the second to the twelfth of January, ten litres of urine were passed daily. During this time, certain feverish symptoms, which came on in the evening, subsided under the influence of quinine. On the twelfth, the patient was directed to abstain as much as possible from all fluids, and to have a daily double quantity of meat, *with one hundred and twenty-five grammes of sugar candy.* This treatment was persevered in on the following days, and the result was that the quantity of urine fell to two and a-half litres in the day—the specific gravity remaining the same, namely 1.060. On the second of January, five hundred grammes of sugar had been lost in the twenty-four hours: from the twelfth to the twenty-fourth, notwithstanding the addition of the sugar-candy, the daily loss of sugar was not more than one hundred and thirty-five grammes.

Detection by Etherization of Feigned Idiotcy.—Etherization has been resorted to in Belgium as a means of acquiring judicial information. After a considerable robbery committed at Brussels in November last, two men, named Lorch and Daubner, were arrested and brought to trial. The former was condemned to hard labor for life; but in consequence of the latter pretending to be dumb and idotic, his trial was postponed, in order that a medical investigation should take place. It was found impossible to get even a sign of intelligence from him. As it was, however, known that he was not born dumb, and that he had spoken, when he said that he could speak no language but German, he was etherized, and while laboring under the effect of that application, he spoke perfectly, and in French. He was in consequence again brought before the tribunal, and condemned to ten years' hard labor.—*British Medical Journal*, August 1st, 1857.

Nitrate of Potash in Dysentery.—Dr. Tiedeman, of Philadelphia, has issued a pamphlet on Dysentery and its Treatment. He says: "The *internal* remedy which I have almost exclusively prescribed, and frequently with surprising success, is *nitrate of potassium* (*kal. nitr.*) I have given it in large doses, which agreed perfectly well with the patients. *Locally*, I have ordered, immediately after each evacuation, no matter how often they occurred, *injections of pure cold water.* In very severe cases, particularly in hot weather, I have ordered injections of ice water with the best effects. As diet, I ordered milk, gruel, barley, rice-water, toast and water, pure water, and buttermilk as much as the patient likes to take.—*Nashville Jour. of Med. and Surgery.*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

Vaccination.—In the second number of our first volume we wrote a long article in favour of compulsory vaccination. Just at that period the subject was being agitated in England, and a bill was subsequently carried through both Houses of Parliament, the provisions of which made it obligatory on all persons in the United Kingdom to have their infants vaccinated within three months after their birth. Great dissatisfaction has been expressed by the medical profession against the working of the bill, but we have not seen any objections advanced against its principle. Nor can we conceive what argument can be reasonably brought forward in support of a voluntary system of vaccination, in view of the important fact, that in those countries where the compulsory system obtains, small-pox is scarcely known, whereas, in other places, where non-compulsion is the rule, the disease prevails extensively, and is very fatal.

In the following countries, where vaccination is compulsory, there were, in every 1000 deaths,—in Prussia, 7.5 of small-pox; in Bohemia, 2; in Lombardy, 1.5; in Venice, 2.2; in Sweden, 2.7. In Copenhagen during thirteen years—from 1811 to 1823—there had not been one fatal case of small-pox, in a population at that time of 100,000. In London, on the other hand, where it is permissive, there were in every 1000 deaths, 16 of small-pox; in Glasgow, 36, and in Greenock, 34.6. In Montreal, from December 1846 to March 1848, inclusive, there occurred 5,811 deaths from all causes; whilst during the same period there were 87 deaths from small-pox, the mortality from this loathsome disease, as compared with the mortality from all diseases, for two years and three months being 15 to every 1000. And if we were to deduct the 1462 deaths which took place in June, July, and August of 1847, during which three months typhus fever was epidemic, the proportion would be much greater. There were, from the 2d November 1852, to the 1st January 1853, 286 persons interred in the Roman Catholic burial places of the city. Of these 286, eleven died of small-pox; the proportion to 1000 being 31.1. From the 1st January to the 30th of June, 1853, the number of interments were 1065, of which 58 died from small-pox. The mortality rising in these eight months to the high ratio of 54.4 in every 1000 deaths from all causes. In that

part of the Census Report of the Canadas relating to "deaths and causes of death," we find it stated that out of 5836 cases of death, in which the causes were specified, occurring in Upper Canada, 38 were from small-pox, or an average of 6.5 in every 1000. In Lower Canada, however, out of 6500, there were 147, or 22.6 to every 1000. These imperfect statistics are sufficient to show that in this country small-pox is far more prevalent and fatal than most persons imagine, and that it is incumbent on our legislature to adopt proper measures to protect the community from its ravages. As we have said before—In estimating the merits of this question, more should be taken into consideration than the immediate mortality of, and alteration of features left by the disease. From its usually attacking persons while they are in a state of infancy or childhood, before the processes of growth and development have proceeded to any extent, those who recover are left in a condition not at all favorable to the production of robust healthy manhood. The whole mass of blood has been poisoned, and the system has received a shock from which it seldom completely recovers. Infirmity of constitution, and consequent liability to various diseases, is entailed upon the individual for life. Nor is it physical perfection alone that is interfered with. The retarding and deteriorating influences which date their origin from an attack of small pox, are quite as inimical to mental as to bodily development.

We have been led to pen these remarks from having read in the "Toronto Colonist" of the 4th Nov., the following notice of a petition presented by Dr. Rees to the Legislature. The arrangements which he desiderates are excellent, but it is our firm opinion that until vaccination be made compulsory, small pox will constantly be found in our midst, and that it will, as usual, add materially to the mortality bills of the Province :—

"We have been favoured by Dr. Rees with an examination of a volume received of no ordinary value, entitled the "History and Practice of Vaccination," published by the General Board of Health, London, 1857, and presented to both Houses of the Imperial Parliament by command of Her Majesty. Its importance at the present moment, when that scourge, Small Pox, has appeared in several parts of the Province, will be readily appreciated. Dr. Rees presented a petition to the last session of the Legislature, praying that measures may be adopted and means provided to secure free vaccination to the inhabitants of this Province, and a Bill was accordingly framed and passed the Upper, but was lost in the Lower House, purely owing to the lateness of the season. The following is the prayer of the petition :—

'That Your Petitioner is strongly impressed with the necessity of some more stringent Legislative provision for the encouragement of the practice of Vaccination in this Province.

That with the view to effect the same, your Petitioner humbly solicits of your Honorable House the passing of a Bill requiring all Hospitals throughout this Province, which are now, or may hereafter be, in the receipt of Public Aid, to keep on hand, at all times, an adequate supply of Vaccine matter, for the undermentioned purposes, viz.,

Firstly.—In order to the Free Vaccination of all indigent persons who may personally apply to receive the same, at certain times to be set apart in each Hospital, for that purpose; such opportunity to be afforded at least twice in each and every week.

Secondly.—In order that all Practitioners of Medicine in this Province, or persons who may be authorized by the Superintendent General of Indian Affairs to make such applications on behalf of the Indian Tribes in Canada, may be at liberty to apply to, and receive from all such Hospitals reasonable supplies of Vaccine Matter, under the authority and direction of the Trustees of such Institution.

And your Petitioner furthermore solicits that any such Bill may contain a Provision requiring all Hospitals in this Province, receiving Public Aid, to report to the Legislature within fourteen days of the commencement of each and every Session, the number of persons who have applied for and received free Vaccination in such Institution within the year, also the number of Medical Practitioners supplied, together with the rules and regulations imposed in reference to the same.'

By reference to the Journals of the Legislature, it will be seen that the practice formerly pursued on an alarm of small-pox breaking out, was to issue an order in Council for general vaccination at the public expense throughout the Parishes—an expense which may be in future saved to the amount of thousands of pounds by adopting the above Bill, besides saving the lives of whole villages of the aborigines, who, when once the disease appears amongst them, are invariably swept off. The difficulty experienced by the medical profession throughout the Province in obtaining genuine vaccine virus, might also be in future effectually obviated."

In Chancery—Toronto School of Medicine *vs.* Victoria College.—We copy the following important decision from a late number of the *Toronto Colonist*:—

"It will be recollected by our readers that, during the last Session of Parliament, an item of £250 was set down in the Estimates for the

Toronto School of Medicine. This was afterwards erased from the Estimates, the Hon. the Inspector General giving as a reason that, as there was some dispute as to who had a right to the title of the Toronto School of Medicine, the Government had thought it their duty to strike the item out. This was the only course the Government could adopt under the circumstances. The Hon. Dr. Rolph stated in his place in the House, at the time, that the parties claiming to be the Toronto School of Medicine had no right so to designate themselves, and that he was the representative of that School. Sometime after this an advertisement appeared in the papers, headed, "Medical Department of Victoria College—The Toronto School of Medicine." The other parties, thereupon, filed a Bill in Chancery, praying the Court that an injunction be issued restraining the College from using the title of the School. After various delays, at the request of the College and Dr. Rolph, the case was concluded yesterday—his Honor the Chancellor deciding that Victoria College had no claim to the title—remarking that they had usurped it without anything to warrant them in so doing, and that it was dishonest in them so to do. We understand that the College is not so much to blame; that they have been deceived by the statements of the Dean of the Medical Faculty, who appears to be a ways getting them into difficulty."

Cholera.—This fell disease has once more made its appearance in England; and there can be no doubt, if it be true to its antecedents, that it will visit the shores of America during the course of the approaching summer. Should it do so, it will again find us unprepared, and the usual mortality and panic will be the result. Six months previous to the outbreak of the cholera of 1854, we warned the authorities of its approach, and urgently advised the adoption of measures calculated to arrest its progress and disarm it, in a measure, of its power. Our warnings, however, were unheeded, and a mourning community were insulted by the solemn mockery enacted by short-sighted and incapable officials, in the great activity displayed to check the progress of an epidemic which had gathered its victims, expended its power, and was already rapidly on the decline.

During the week ending Saturday, October 17th, there were registered in London four deaths from cholera and choleraic diarrhœa; whilst in the West Ham district, there occurred seven deaths from the same diseases. During the week ending October 24th, six deaths from cholera and choleraic diarrhœa were registered. It is to be hoped that these cases are merely sporadic, for not a year passes without a few deaths from cholera occurring in London. Some of those recorded, however, appear to bear an epidemic character.

Club Foot.—As Talipes is a species of deformity not at all uncommon in Canada, and as a proper instrument is a *sine qua non* in its treatment, we think it a matter of sufficient importance to inform our readers, that, as far as we know, Mr. S. J. Lyman, is the only person in Montreal who can furnish an article of the kind. We lately operated on a case of Talipes Equino-Varus, and the patient is now wearing an instrument obtained from Mr. Lyman, which fulfils all the indications demanded, and is, in its finish, a credit to Canadian workmanship. This is the second case we have operated on within a short time, and we have now a third on whom we will operate in a few days. Our readers will duly appreciate the importance of the information we tender, regarding the gentleman from whom they may obtain a proper instrument, when we tell them, that an applications for the manufacture of instrument, made to different mechanics, and to a so-called "Surgical Instrument Maker" were perfectly futile; not one of them would attempt it.

Semi-Annual Meeting of the College of Physicians and Surgeons of Lower Canada.

Quebec, 13 Octobre 1857.

A l'assemblée semi-annuelle du Bureau des Gouverneurs du Collège des Médecins et Chirurgiens du Bas-Canada tenu ce jour à l'école de médecine de l'Université Laval, furent présentées : Drs. Von Iffland Hall, Chamberlin, Jackson, Sabourin, Robitaille, Bibaud, Gauvreau, Michaud, Glines, Weilbrenner, Munro, Boyer, Peltier, Fraser, Jones, Fowler, Tétu, Marmette, Russell, Marsden et Landry.

Le Dr. Von Iffland, vice-président du collège pour le district de Québec, prend le fauteuil.

Le secrétaire lit les minutes de la dernière assemblée du bureau tenue à Montréal en mai dernier.

Ces minutes sont approuvées par l'assemblée.

Les Drs. Frémont (président) et Sewell entrent à cette période de la séance.

Le secrétaire soumet une lettre du Dr. Gilmour, des Trois-Rivières, dans laquelle ce monsieur s'excuse de ne pouvoir assister aux délibérations du bureau, alléguant un mauvais état de santé. Le bureau accepte la raison du Dr. Gilmour comme très suffisante.

Le secrétaire soumet à l'assemblée un Diplôme de la Société des Pharmaciens de Dublin (Apothecaries Hall of Dublin) octroyé à M. Hyacinthe Cuniffe, et, entre autres documents, une pétition de ce monsieur priant le bureau de lui accorder sans examen une license pour pra-

tiquer l'art médical, alléguant à l'appui de sa demande que ce diplôme lui donne le droit d'exercer la profession médicale dans toutes ses branches dans le Royaume-Uni de la Grande-Bretagne. Le bureau décide que M. Cuniffe ne peut obtenir la licence qu'il sollicite qu'en se soumettant à un examen sur les matières qui ne sont pas comprises dans son diplôme.

M. Cuniffe refuse de se soumettre à l'examen et demande une licence en pharmacie qui lui est accordé en considération de son diplôme, après la prestation du serment d'usage.

Le secrétaire soumet encore au bureau des documents incomplets appartenant à William H. Foster. Mais comme le bureau avait décidé en mai dernier que ce monsieur avait droit à un examen, il est de nouveau résolu que M. Foster pourra se présenter maintenant pour le subir. Quelques uns de ces documents portaient le millésime de 1843.

Le secrétaire pour le district de Montréal, présente à l'assemblée un diplôme de la Faculté de Médecine de Paris (France) octroyé à M. de la Marteillère. Ce diplôme est accepté comme certificat d'études complètes et l'assemblée décide que M. de la Marteillère pourra se présenter pour subir un examen général.

Le Dr. Hall, l'un des vice-présidents du collège dépose devant la chaire le rapport des deux comités réunis de Montréal et de Québec (comités nommés à Québec à l'assemblée d'octobre 1856). Ce rapport fut remis à M. le Dr. Peltier, l'un des collaborateurs, qui lut comme suit :

REPORT OF THE CONJOINED COMMITTEES.

Your conjoined Committee consisting of Drs. Morrir, of Quebec, and Drs. Hall, Jones, Bibaud, and Peltier, have met twice in Montreal, on the 12th October, 1857, and carefully considered the reports of the Montreal and Quebec Committee appointed at the last autumnal meeting in Quebec,—"to ascertain the best means of extending the usefulness of the College to the profession and the public in general." Conceive that in these Reports the respective Committees have exhausted for the present the subject submitted for their consideration, and while they earnestly press upon the Governors of the College the importance of matter discussed, they would at the same time urge the necessity of drawing the attention of the Legislature to them in form of a bill, which might be entertained without reference to the acts which incorporate the College.

Your Committees would now recommend to the Board of Governors the nomination of a new Committee whose term of existence should expire at the next triennial meeting to be re-appointed, if required, whose

duty it shall be carefully to collate the suggestions offered in the two Reports, and upon that collation to found a bill which should incorporate those suggestions. The necessity for the re-appointment of the Committee just recommended, consists in the continuous supervision over the bill during its passage through the present or future legislature.

The following would constitute the features of such a bill :—

1st. The education and qualifications of apothecaries, chemists, and druggists, with necessary provision for the inspection of drugs, &c., &c. with stringent regulations for the sale of poisons.

2nd. The appointment of a commission, under whose direction should be enforced those hygienic rules or measures which have been recognised as serviceable during the prevalence of epidemics for securing the health of towns, for the registration of births, marriages and deaths, and such other measures as would conduce to the general good in these respects.

3rd. The enforcing of a license on all specialists in any of the branches of the profession.

4th. The appointment of medical men as coroners or associates, especially in the large cities of the Province.

5th. The power of suspending from practice members of the College or profession who have been convicted of felonious practice.

All of which is nevertheless respectfully submitted.

J. G. Bibaud, M.D.
A. Hall, M.D.
Thos. Walter Jones, M.D.
Hector Peltier, M.D.
Joseph Morrin, M.D.

Le Dr. Chamberlin secondé par le Dr. Glines, propose que le rapport qui vient d'être lu soit accepté.

Agréé unanimement.

Après quoi le Dr. Sabourin secondé par le Dr. Marmette, propose et il est résolu, *nem : contr :*

" Que le collège des mèdecins et chirurgiens du Bas-Canada remercie " le Dr. Morrin de l'intérêt qu'il a mis à sauvegarder les intérêts de la " profession médicale dans le Bas-Canada, ainsi que les autres membres " de la profession qui ont contribué au rapport qui vient d'être pré- " senté."

Le Dr. Marsden propose, secondé par le Dr. Boyer, et il est résolu,

" That Mr. Alleyn be charged with the Bill to be submitted to the " Provincial Legislature."

Après une assez longue discussion à laquelle plusieurs membres prennent part, et pendant laquelle plusieurs noms sont suggérés comme

propre à composer le comité qui devra rédiger le Bill, le Dr. Marsden fait motion secondé par le Dr. Bibaud, et il est unanimement résolu,

" That the two vice-presidents be named with power to add to their " number to draft a bill under the suggestions of that sub-committees, " and that they shall when the bill is prepared cause it to be printed and " a copy sent to each member of the college, giving one month to receive " any amendments or suggestions that may appear necessary."

Après quoi l'assemblée se divise en comités pour l'examen des candidats, et les messieurs suivants ayant respectivement subi un examen satisfaisant obtiennent leurs licences, savoir :

MM. H. de la Marteillère, D. M. ; Crookshank, R. Anderson, Charles Morin, Antoine Marçant, H. Filiatrault, P. H. Bernier, L. G. Delorimier et Dieudonné Archambault.

Les messieurs suivants sont après examen admis à l'étude de la médecine, savoir :

MM. J. Desjardins, J. B. Bauchemin, Majorique Rivard, Napoléon Carrier, Alfred Lachaine et — Duncause.

M. Cuniffe reçoit sa licence de pharmacien.

A cette phase de la séance le postillon remet au secrétaire une lettre du Dr. J. B. Johnston priant d'être excusé auprès du bureau de ce qu'il n'est pas présent à l'assemblée, une attaque de rhumatisme le retenant forcément chez lui.

Les affaires étant terminées l'assemblée est invitée à vouloir bien examiner un enfant que le Dr. Painchaud de Québec a eu la courtoisie de lui adresser. Cet enfant, jeune encore, est très intéressant à cause d'un de ces *jeux de la nature* qui l'a, pour ainsi dire, mutilé avant de naître.

En considération de cette marque d'attention du Dr. Painchaud, il est proposé par le Dr. Fowler, secondé par le Dr. Hall, et résolu,

" That the thanks of the Board be conveyed to Dr. Painchaud for his " considerate attention in sending a very interesting case of *lusus naturæ* " for inspection of its members."

Après quoi l'assemblée s'ajourne.

J. E. LANDRY, M. D.,
Sec. Col.,
Med. et Ch., B.-C.,
District de Quebec.

MEDICAL APPOINTMENTS.

Secretary's Office,
Toronto, Nov. 14, 1857.

His Excellency the Governor General has been pleased to grant Licenses to practise Physic, Surgery and Midwifery in Upper Canada, to the following persons, viz :

Richard King, of Hamilton, Esquire, Surgeon, R.N. ; Byron Ghent, of Hamilton, Esquire, M.D. ; James Dickson, of Clifton, Esquire, M.D. ; Alexander R. McDonald, of Kingston, Esquire, M.D. ; and James Maxwell Bell, of Nasagaweya, Esquire, M.D.

First Volunteer Militia Rifle Company of St. Vincent de Paul.

To be Surgeon :—Surgeon Joseph Pratte, Esq., of the 2nd Battalion of Terrebonne.

Montreal Sedentary Cavalry.

To be Assistant Surgeon :—Charles Picault, M.D., Gentleman, vice Nelson, transferred to Active Force.

Second Batallion, Chicoutimi.

To be Surgeon :—Vincent Martin, Esquire.

Toronto, Nov. 21, 1857.

His Excellency the Governor General has been pleased to make the following appointments, viz :—

Stephen Crawford, M.D. and Walter Thorpe, M.D., Esquires, to be Associate Coroners for the United Counties of Huron and Bruce.

George Paton, Esquire, M.D., to be an Associate Coroner for the County of Waterloo.

Joseph Crawford, Esquire, M.D., to be an Associate Coroner for the County of Grey.

John S. Powell, of Port Robinson, County of Welland, Gentleman, to be a Notary Public for Upper Canada.

His Excellency the Governor General has been pleased to grant Licences to practise Physic, Surgery and Midwifery in Upper Canada, to the following persons, viz :

Johnstone Vicars, of Ancaster, Esquire, Surgeon, and

James Douglas, formerly of Glasgow, Scotland, but now of Chatham, Esquire, M.D.

To Correspondents.—Dr. Geo. M. Abbott. We regret we have not had the *Materiel* to send.

University Medical Students' Association.—The annual re-union of the members of this Society took place in their rooms at McGill College, Coté Street, on Friday last. The Secretary having read an elaborate report of the Proceedings of the Association during the past

year (which have been eminently successful and the benefits to be derived from a continuance of its active co-operation) the ballot was taken for the appointment of officers for the ensuing year when the following gentlemen were unanimously elected :—

Patron—W. Wright, Esq. M.D., L.R.C.S.E.

President—Thurlow Cunynghame.

Vice President—W. Harkin.

Secretary—W. H. Taylor.

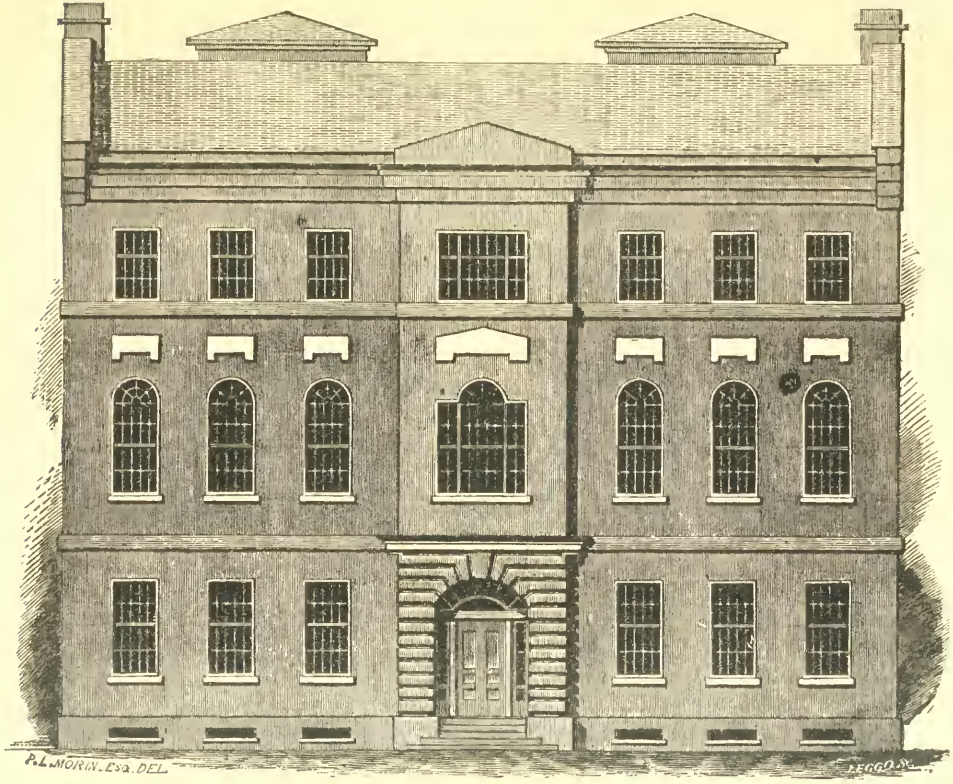
Assistant Secretary—James Duncan.

Treasurer—Edward R. Smith.

Scrutineers—Messrs. G. S. Fraser and J. W. Pickup.

MEDICAL NEWS.

Dr. Alexander B. Mott, of New York, while returning at 12½ o'clock from a professional visit, was assaulted by two ruffians, who attempted to take his life. One of them struck him on the head with an iron bar or "jimmy," but the Doctor drawing a revolver fired at the two, as they stood close to each other, wounding one of the rascals. A return shot was fired, the ball passing through the doctor's hat, quite close to his head. They made their escape, and have not as yet been secured.—Mr. Wm. Adams has been elected surgeon to the Orthopœdic Hospital, London, by a majority of 100 votes.—The chair of Clinical Medicine at Oxford has been filled by the appointment of Dr. Ackland.—The death of Mr. Keate left vacant the office of Serjeant-Surgeon to the Queen, with a salary of £280 per annum ; the appointment has since been conferred on Mr. Travers. The office of Surgeon Extraordinary has devolved on Mr. Cæsar Hawkins, *vice* Travers.—It appears from the statistics published by the Common Council Bureau of Vienna that the number of illegitimate births has almost equalled the number of legitimate births during the four years from 1853 to 1856. The following are the figures on the subject: 1853, legitimate births, 11,264 ; illegitimate births, 10,686. 1854, legitimate births, 11,252 ; illegitimate births, 10,801. 1855, legitimate births, 10,650 ; illegitimate births, 9,522. 1856, legitimate, 10,870 ; illegitimate, 10,311.—A statue of Bichat has recently been erected at Paris. It is in bronze and the work of the celebrated sculptor David. Bichat is represented, in the costume of the time of the consulate, standing in an attitude of meditation. His arms are folded across his chest. The right hand holds a pen ; from the left falls a roll, on which are written the names of his great works—*De la vie et de la mort*, and *Anatomie Generate*. At his feet, and behind, lies, half covered, a subject prepared for dissection.—A German doctor, of Urbana, Ill., the manufacturer of snake-bite medicine, caught a rattlesnake on the prairie and took it home, and offered to let the snake bite him every time any person bought a box of his medicine for one dollar. On Sunday of last week, while fooling with his pet, it bit him on the hand. He applied his medicine without effect. On Monday he sent for a doctor, but too late ; he died the same day.—A lady in Stamford, Conn., had been applying to her hair a mixture of castor oil and alcohol, and approaching a lighted lamp her head became enveloped in a blaze, and the flame was not extinguished until she was so severely burned that her life was despaired of.—Shields, doctor, looking learned and speaking slow : "Well, mariner, what tooth do you want extracted ? Is it a molar or an incisor ?" Jack, short and sharp : "It is in the upper tier, on the larboard side. Bear a hand, you swab, for it is nipping my jaw like a lobster."—No fewer than 5000 cases of cataract have been treated at the Moorfields Opthalmic Hospital during the past sixteen years.—In all the tobacco shops in the chief streets in London, very large clay pipes, treble the usual size, are now exhibited in the shop windows, and labelled the "Controversy Pipes," dedicated to Dr. Solly since the controversy!



UNIVERSITY OF LAVAL.

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ORIGINAL COMMUNICATIONS.

ART. XXIV.—*Therapeutical Contributions.* By WILLIAM WRIGHT, M.D., L.R.C.S.E., Professor of Materia Medica, McGill College. Physician to the Montreal General Hospital, &c.

ANTI-SPANÆMICS.

The medicines pertaining to the present class have the power of improving the quality of the blood, when this fluid is impoverished. They are more numerous than is usually admitted, and are not confined to any special group of substances, nor are they restricted, as is currently esteemed, to the preparations of iron, but, on the contrary, include with these, other and dissimilar agents, as manganese and its compounds, sulphuric acid, &c. It cannot, therefore, be considered that the narrow term "chalybeates" denotes them, as Mr. Headland declares in his "Action of Medicines"; nor can it be overlooked that his instructor, Dr. Pereira, also fell into a practical error concerning them when he believed they acted by supplying iron to the blood which was previously deficient, and in accordance with this opinion named them hæmatinics, merely because this metal is found in the colouring matter of the blood. Evidently this action cannot be of the simply restorative kind thus implied, since other agents containing no iron, as I have said, produce a similar effect; and again, an hæmatinic—if an agent capable of replacing hæmatosine—must supply equally the other ingredients, as well as the iron of which this proximate principle is composed. Pure metallic iron, as *pulvis ferri*, can only supply itself; it contains neither carbon nor hydrogen, nor oxygen, nor nitrogen, of which relatively more of the bulk of hæmatosine consists than of iron; it cannot, therefore, supply these.

So that if it be, as undoubtedly it is, an improver of impoverished blood, it must have some more remote action than that of a simple restorative. But the objection runs yet further:—Deficient hæmatosine constitutes but one of the errors in the morbid state of the blood in which these medicines are useful; there are simultaneous changes in the water, albumen, etc., and, as these are equally remedied with the former, there is still greater impropriety in signalizing one in particular as the exponent of the medicine's action, and consequently of its character and power. No name in use hitherto correctly designates agents of this kind. The only remaining one after the former is hæmatic; but this implies a medicine acting either upon or through the blood, and embraces within its enclosure various and diverse other classes besides the present, as the anti-scorbutic, anti-syphilitic. If a term were to be constructed in unison with these latter, and which should precisely express the end obtained by the medicine, then anti-spanæmic appears to me to be more accurate than any other,—spanæmia being a well-known name for poverty of the blood, and anti signifying the means which should be used against it.

The exact powers of these medicines should be clearly understood. Anti-spanæmics are not indicated in anæmia. They distinguish between spanæmia and anæmia; for while serviceable in the former, they are improper in the latter. They are blood correctors, not blood makers. Although able to rectify qualitative alterations, they are incapable of making up any deficiency that exists in the absolute quantity of blood. They are, therefore, to be withheld in bloodlessness arising immediately after a great hœmorrhage, in which condition, according to Beau, the pulse is small, and no arterial bruit is audible. In such a case their place is most appropriately supplied by means calculated to suspend the exhausting drain and to afford a supply of sound pabulum vitæ; of the latter measures, good food and other alimentary auxiliaries will be the most efficient.

A less common mistake to commit than the last, is to consider them indicated in spanæmia generally, or, what means the same conventionally, in anæmia not produced by direct losses of blood. Whenever certain general symptoms, such as pallor of the skin, blanched aspect of the mucous membranes, feebleness, and the discharge of the functions of the body in a weak, imperfect manner are present, and they have not been preceded by hœmorrhage, anti-spanæmics are believed to be appropriate. But this is a grand error. The legitimate use of these remedies is, in reality, very restricted; for with one exception they are either directly contra-indicated, or indirectly avoided, in all cases popularly suggesting their employment. The mere outward appearance is no token: we must look

beyond it to the condition of internal parts, and, when these are found structurally morbid, anti-spanæmics are to be reserved from employment. As for example, whenever spanæmia is associated with or maintained by malignant disease of any organ; in such cases Carmichael long ago recommended iron as the proper remedy, but experience has not confirmed his vaticinations: the recurring hæmorrhage by which the disease is aggravated is an additional reason why they should be forbidden, for this complication associates them with the general anæmia before described. Anti-spanæmics are also improper in the spanæmia of tuberculosis. Trousseau has found that this form of the disease is aggravated by ferruginous preparations, and, according to his views, this fact supports his theory of an antagonism between tuberculosis and anæmia. As long as the latter prevails, the occurrence and the progress of phthisis are kept in check; but when it is ameliorated, the local disease increases,—from which the practical rule is drawn, that no endeavor is to be made to cure chlorosis in females who are threatened with tubercular deposition. Anti-spanæmics are of no service in removing the spanæmia of various chronic diseases marked by a tendency to produce results of a cacoplastic nature; as for instance, disease of the supra-renal capsules. Mr. Addison has latterly drawn attention to this cause of anæmia. And it is evident from his account that anti-spanæmics must be useless, as they cannot restore to these decaying organs their healthy functions, and in themselves afford no compensation for the want of duly elaborated blood This variety is usually fatal, and its proper treatment no doubt lies in the use of entirely different remedies. Granular or adipose degeneration of the kidney is another organic disease in which anæmia is observed: under this title it is probable that several different disorders have all been classed together and compounded with each other. In this way cases have been mixed up as similar under the name of albuminuria, which really proceed from different pathological bases, as fatty transformation, albumino-nephritis, and cirrhosis of the kidney. Dr. Lees, of Dublin, proposed, a few years ag, othe ammonio-tartrate of iron as the true cure for albuminuria; but this remedy is inconsistent with a knowledge of the first principles of therapeutics; for in cases having the pathological bases just stated, the proper treatment must begin at the local disease. Again, in these a danger would accrue from anti-spanæmics, for, as they are stimulant and tonic, there would be an imminent risk of aggravating the tendency that is always present to the establishment of local inflammation, and which, in a more or less obscure way, is intercurrent with the nephritic lesion. I believe, however, there is a pseudo-albuminuria which mimicks the former, but differs in originating

from a blood error similar to that which prevails in spanæmia indicating the use of anti-spanæmics; and that to these false cases the statement of Dr. Lees is perfectly warranted, but that in the true forms, they are contra-indicated and their exhibition is not to be ventured upon. In the summer of 1855 a remarkable case of albuminuria of the spurious order was under my observation, in which, after a persistence for several months in the use of ammonio-citrate of iron, a perfect cure was effected in the disorder; and the man eventually returned to his former occupation of cab-driving, apparently as well as ever. Dr. Begbie has drawn attention to a form of anæmia which follows upon certain cases of heart-disease, described by Dr. R. L. MacDonnell of this city, that are accompanied with the remarkable signs of goitre and enlarged eye-balls: in these antispanæmics are also contra indicated. They are likewise to be avoided in spanæmia with deficiency of albumen in the blood. Becquerel and Rodier, as quoted by Ranking, Vol. XI., draw attention to this form, of which the chief feature is a reduction in the proportion of albumen. This defect is not necessarily associated with a diminution in the amount of red globules, although these two reductions do often co-exist together. It is announced by the general symptoms of anæmia, and usually by anasarca and albuminuria. Antispanæmics are, therefore, not proper agents in anæmia occurring after profuse discharges from catarrh or exosmosis of any mucous surface, as chronic diarrhœa, diabetes, spermatorrhœa, &c., as these are the usual causes of the variety in question. To the same exclusive genus may be referred anæmia after intermittent fever: a form which experience shows is readily cured by quinine, but not by iron; the peculiar antiperiodic action of the former being capable of depriving the miasmatic intoxication of its virulence,—by the agency of which the ætiolation is produced, and not, as has been supposed, by the spoliation of the febrile paroxysm. This view is also substantiated by various other facts, such as by the birth in marshy districts of spanæmic children who have no ague; by adults becoming etiolated who have never had an attack of the disease, &c. Occasionally after evacuant medicines have been too assiduously administered, anæmia of the above species is produced, so that there also antispanæmics are not advisable. Here likewise may be included, as exempt from the influence of anti-spanæmics, that variety of anæmia which is incident to tropical invalids, and constitutes the most common sequel to their fevers, whether these have been continued, remittent, or intermittent, as well as to various other diseases of a more acute cast to which they are liable, as dysentery, hepatitis, cholera, &c. And lastly, as Trousseau has pointed out, there is a remarkable form of chlorosis characterised by suppression of the

catamenia, &c., not produced by any hemorrhage, in which antispanæmics are useless. It is very refractory, and is commonly accompanied by symptoms of greater severity than are witnessed in other varieties of anæmia. It may last for an indefinite period of time, and does not permanently yield to any treatment, however well designed, which may be tried; for should it be removed, it will often recur without apparently any cause.

In all the foregoing exceptions, then, anti-spanæmics are powerless. Their exclusion leaves but one variety in which these agents are allowable, and it is this:—Spanæmia that supervenes, mysteriously, without any appreciable remote cause, but clearly depends upon the blood ingredients being coupled together in quantities disproportionate to the healthy measure, in which the most conspicuous features are pallor of blood and fullness of the vessels, owing to the red globules being deficient in number and the vessels containing an excess of water, the *polyhæmia sereuse* of Beau; where co-exsist arterial souffles with a pulse preternaturally full in volume, and neither dropsy nor albuminuria are ordinary attendants.

Anti-spanæmics operate in several ways.

1. By an action upon the blood. This is the most remarkable or notorious. They render the blood healthy, and attain this object chiefly by increasing the number of red corpuscules, and by augmenting the quantity of hœmatosine, both relatively, as is to be inferred from the former change, and absolutely, by increasing the proportion of that which previously existed. They also enlarge the proportion of albumen and augment the amount of solid constituents, and thus heighten the specific gravity of the plasma: they diminish the excess of water and lessen the quantity of fibrine; and furthermore, they reduce the extractive matter and salts. Of these various changes the most obvious, because the most easily discovered, is the augmentation in red globules. Simon refers to a case wherein their proportion rose from 32 to 95 in the 1000 after a few weeks of treatment. This effect has led some to overlook the other changes that proceed cotemporaneously, and to believe that the action of the medicine was of a more simple kind than it is in reality. From a principal constituent of the hœmatosine being iron, and from this remedy being generally useful in such cases, it has been hastily inferred that it was merely a restorative, and improperly supposed that it merely deposited in the blood the amount of itself of which this fluid was deficient. But this opinion is not countenanced by the multiplicity of collateral changes that are likewise wrought; as well as by the argument before defined of *non*-ferruginous articles producing similar changes,—

the blood contains no manganese, yet this is a most efficient anti-spanæmic. The augmentation of red corpuscules probably entails by necessity the reduction of the fibrin, since decrease of the latter may be explained by assuming that the increasing cell-growth leaves the serum less saturated with organic blastematous material than previously existed when fewer blood-cells were evolved from it. The other changes appear to be results of distant actions of the medicines, viz. on chylosis, secretion, &c. A question now arises,—Are not the former alterations similarly produced? Does the medicine act topically upon the blood by a local hœmatosis, modifying the affinities that subsist between its different particles, or is the change in the blood but the effect of the actions upon the digestive system and nutrition generally? The latter appears to be the true interpretation, for reasons, before assigned, which served to show that these agents are not simply restoratives, as well as from the fact that upon these parts anti-spanæmics exert very decided influences, that are of such a character as would lead to the elaboration of healthy blood. These will now be examined.

2. By improving chylosis. All the members of this class are tonic, and that this is one of their most important powers is shown by those preparations of the same substance being most energetic which can induce the most powerful invigoration of the digestive system; thus the muriated tinct. and oxysulphate of iron are far more active than the sesquioxid or black oxid,—the finely powdered metal than the coarse filings, &c. Again, the benefit is not in accordance with the amount, for most good may usually be derived from the preparations that are taken in least quantity; small doses capable of causing an alteration in the morbid tendencies, being better than larger ones which are competent to produce a more impressive or supplementary influence. Those compounds of anti-spanæmic bases which are not tonic nor alterative, are not anti-spanæmic. Thus, neither the ferrocyanid nor the ferridcyanid of potassium are anti-spanæmic. The carbonate of manganese is not anti-spanæmic, though nearly all the other salts of this basis are most powerfully so. And, lastly, ordinary tonics occasionally induce precisely the same changes as those commonly, though erroneously, considered to be peculiar to anti-spanæmics proper. Hannon found that when chlorotic patients were not benefitted by either iron or manganese, they got well after taking lead, or copper, or bismuth. Several recovered entirely under the use of the latter. He says, "in these the globulin was reproduced without an atom of iron or manganese." He explains the use of the metals generally, by supposing they form insoluble sulphurets with the hydro-sulphuric acid, eliminated in the intestines. By thus fix-

ing this gas, they prevent it from decomposing the hematosine furnished by the food, and which action when uncontrolled appears to him to be the great cause of chlorosis.

3. By furnishing appropriate aliment. Admitting the explanation last given, we perceive one great use in anti-spanæmics to be a restoration to the system of building material which the disease tends to abstract and waste. The hœmatosine contained in food is so destroyed by the hydrosulphuric acid in the primæ viæ that it cannot be appropriated by the system, and, until freed from the power of this gas, ceases to be nutrient, so that the blood is no longer supplied with this principle, and grows poor in it. Anti-spanæmics, however, when received, put an end to this spoliation, by combining with the gas and preventing its generation, and the proper assimilation is recovered. According to the authority last quoted, "most aliments contain hœmatosine ready formed, or an analogous vegetable compound." Lehmann inclines to think, that, besides the supply which exists ready prepared, a portion may be also formed by transformation of oleaginous food. Anti-spanæmics may therefore, we believe, further affect the above action, i.e., supplying appropriate aliment, by furnishing to other alimentary substances the necessary elements in which they are deficient, according to the composition of hœmatosine, and, by abetting their conversion, contribute to the formation of this substance.

4. By normalizing nutrition. Simon describes the influence of iron in anæmia to be "a stimulant to the development of blood-cells," and he adds that in this respect its action falls within a general law, "that the specific stimulus of cell-growth in every organ of the body indiscriminately, is a material identical with or convertible into the natural contents of the cell." The same may be applied to other anti-spanæmics. It is probable that these remedies have an analapetic action upon the organs of nutrition generally, but particularly upon the liver and spleen. As the red corpuscules are developments of the white corpuscules of the blood, there should be an increase of the latter proportionable to the decrease of the former in anæmia; but as this is not observed to be the case,—the white corpuscules being rather diminished than multiplied in numbers,—it follows there is a want of activity in their production, and consequently that the liver, which is their chief factor, is principally concerned in the fault. As has been just stated, the action of the remedies is not confined to the viscera last-named, so that the same observations will equally apply to the other seats, as the chyle, where these bodies are produced. The minute details of the operations of these agents cannot be precisely defined, from our inacquaintance with the true physiologico-

chemical occurrences of nutrition that constitute its peculiar phenomena; for until these be pre-ascertained, no accurate interpretation of medicinal agency involving them can be rendered.

ART. XXV.—*On Hæmorrhoids, and Prolapsus of the Rectum, with their Treatment, by the Application of Nitric-Acid.* By V. A. Brown, M.B., Surgeon to the Enrolled Pensioners and Volunteer Battery of Artillery, London, Canada West.

Hæmorrhoidal affections have been so frequently the theme of surgical enquiry, they have excited so much controversy, and called forth so many monographs from eminent members of the profession, within the last few years, that one feels no little hesitation in approaching such a subject. In a practical Science like surgery, far more good is in general done by directing attention to special points, enlarging the field that has been already sown, and maturing its products, than by lending the mind exclusively to the conception and propounding of novelty.

A novel idea, being the result of deep meditation and close reasoning, may in point of utility, though replete with merit, if unaided by any light antecedently shed on the subject, be without value, while the accomplishment of the task just mentioned can hardly fail to be of practical benefit to some, and perhaps suggestive to all.

This observation applies with peculiar force to the subject of the present communication, and may be deemed a sufficient excuse for introducing one here, which to many may seem too often touched upon.

No class of affection which comes under the cognizance of the surgeon is more distressing, or more productive of uneasiness and suffering either to male or female, than those of the rectum, particularly if they have existed for any length of time.

On this continent hæmorrhoidal affections are extremely common, to be attributed in a very great measure to the climate and our mode of life, which to a great extent tend to cause and promote torpidity of the hepatic secretions, and with it a general congestion of the whole portal system. The frequency also of dysenteric affections often lays their foundation and that of prolapse.

They are seldom met with in very young persons, being scarcely ever produced till the body is completely developed in breadth as well as height, an age between 30 and 40 being the most common period for them to begin.

In speaking of piles, two things very distinct in their nature, treatment, and consequences are frequently confounded with each other,

namely, *hemorrhoids* and *hemorrhoidal excrescences*. The former are nothing but a varicose state of the veins at the verge of the anus. The veins are branches of the internal iliac; they pour their blood into the superior hemorrhoidal vein, which returns its blood to the vena porta. If this becomes obstructed from disease or any torpidity of the liver, it would necessarily lead to congestion of the veins of the rectum; and this anatomical fact points out to us that the remedies to effect a cure must be directed to the relief of the loaded liver. In their texture they are subject to a great deal of variety. Sometimes, as stated above, they are merely dilated veins or varices situated near the anus, or lower portion of the rectum, forming prominences covered by its mucous membrane, or the delicate skin near the anus, and from which a bleeding takes place whenever there is a great determination of blood to the parts.

In the other still more complicated cases, viz. of hemorrhoidal excrescences, their texture is more complex, many of them being characterized by an areolar, soft, spongy structure filled with blood.

At periods when these are in a quiet state, free from irritation, and without any particular determination of blood to them, they are small and shrivelled; but in the contrary circumstances they swell, become firmer, undergo as it were a kind of erection, and blood is voided from their surface. Hence their texture is compared by French pathologists to the erectile tissues. Numerous arterial branches are distributed to them, which have often occasioned a fatal hemorrhage when the operation of excision is had recourse to for their removal. Hemorrhoids are divided into internal and external, according to their situation, either above the internal sphincter, and in the inferior portion of the rectum, or below the sphincter, near the verge of the anus, under the thin delicate integuments with which this part is covered. But as an internal pile may be protruded below the ext sphincter, the best criterion is its texture, for it is always covered by the mucous membrane of the bowel, while an external pile is invested by the delicate skin which surrounds the verge of the anus.

Those internal ones which resemble varices, lie under the mucous membrane, which is often found adherent to their surface, and so thin that their blue colour can be plainly distinguished through it.

Varicose piles chiefly make their appearance when the parts are in a state of congestion, in the form of dark-blue elastic knobby swellings, not attended with much pain, yielding to pressure, but returning immediately it is discontinued.. In short, internal piles, according to the most recent authorities, are considered to be prolapsed folds of mucous membrane, lining the internal sphincter, extremely vascular, hypertrophied and thickened by long constriction.

External piles have, when the skin is thin, the uniform bluish tint of a vein; while internal piles present that purplish colour which resembles the intense congestion of strangulated mucous membrane.

The former may be snipped off, and there is no danger of hemorrhage after the vein has emptied itself: the latter, if cut away, bleed continuously and profusely, the blood being arterial and not venous. This fact leads us to a question of great practical interest, viz. ought internal piles ever be excised? A very great variety of opinion exists on the point. Many eminent surgeons advocate the propriety of the excision of all kinds of hemorrhoids, arguing that the ligature occasions excessive danger from phlebitis, peritonitis, pelvic abscesses; and while the advocates of the ligature contend that the fatal results of hemorrhage which has so often ensued from excision, ought to render the operation unjustifiable, it may be safely mentioned, that both operations, in the hands of the most skillful of our profession, have repeatedly proved fatal, so much so that many have discontinued both, chiefly that of excision.

Within the last few years the surgical treatment of this class of affections has undergone a great improvement, by an agent which bids fair to supersede all other mode of interference. I allude to the application of strong nitric-acid, which has proved eminently successful. Its use is greatly to be preferred either to excision or the ligature, as being less painful, very certain in its results, and free from all danger. With the timid male or female it excites no apprehension, and a second application, should it be required, is never objected to.

Its use was first introduced into the Dublin School of Surgery by M. G. Cusack, who has used it with uniform success for some years. While attending his clinique in Madame Steeven's Hospital, I had numerous opportunities of witnessing the success with which he used it, and since then I have myself applied it in many cases with similar results.

Mr. Cusack was very particular in its mode of application. The best and readiest mode is by means of a small hair-brush made expressly for the purpose; or if not procurable, a flat piece of wood, the size of a spatula, but a little narrower at the end, is to be wet with the strong acid, and applied decidedly over the pile till its surface becomes a greyish white. A little oil is then smeared over the part, in order to prevent any free acid affecting the neighbouring parts. The chief things to be attended to, are not to take up too much of the acid on the stick, lest it drop on the surrounding parts, and to apply it effectually so as to destroy the mucous membrane which covers the pile. When this is done, the slough caused by the acid soon comes away, leaving a healthy granulating surface, which rapidly heals, and by its contraction produces a curative pressure on the subjacent distended hœmorrhoidal vessels. Fre-

quently after its application, a dysuria comes on, which lasts some hours, sometimes days, and subsides spontaneously. There is sometimes also swelling, partial or general, of the areolar tissue about the anus. The patients complain of it a little, and generally think that it is the hœmorrhoids which come down.

To combat these symptoms, the patient should be confined to bed for a few days, and kept strictly on low diet, and opiates should be administered in order to produce constipation of the bowels. Should dysuria occur, warm hot stupes to the anal region, with an opiate enema or suppository, will be found to give great relief, or the hip bath; and should there be retention of urine, which is sometimes likely to occur in consequence of sympathetic irritation, the catheter should be used. In a few days, small portions of sloughs will be seen, indicating that the mortified tumours are thrown off. Then should any raw surface remain, a mild astringent lotion will rapidly effect a cure.

The following cases, selected out of many which I have treated, will show how efficacious are its effects in these troublesome affections.

Mrs. B., aged 32, mother of two children, a very delicate person, had been subject to piles for two or three years: they have been greatly increased by pregnancy. She had tried in vain various astringent lotions and ointments, with constitutional treatment. Latterly the parts had become slightly inflamed, and produced such local uneasiness, that she was willing to undergo any operation that would be likely to effect a radical cure; for that purpose, she consulted me.

The tumours consisted of dense, elastic, knotty swellings, clustered together, of a purplish hue, hypertrophied and thickened by long constriction, and situated within the internal sphincter. Every stool caused her, she said, intense pain. It seemed a remarkably favourable case for nitric-acid: I accordingly recommended its application to her, and, promising a certain cure, she readily consented.

The following day, having previously perfectly cleared out her bowels, I freely applied the acid, according to the method described above. She suffered considerably after it for several hours. The pain, however, gradually subsided under the use of the remedies enumerated above. In 5 or 6 days the eschars came away, bearing 3 or 4 of the tumours, but greatly reduced in size. She experienced great relief, and promised to undergo a similar operation; which I told her would be necessary in order effectually to remove them, whenever I considered it the proper time. In a month afterwards, I reapplied the acid; the application being followed by similar symptoms, but this time with a complete removal of all the remaining tumours. Six months have now elapsed since the last

application, and she says that she feels perfectly relieved. In the following case, viz. one of prolapses of the rectum of more than 38 year's standing, and which, during its continuance, was painfully distressing to the subject of it, its beneficial results, although only partial, are extremely marked.

I shall give the gentleman's own history of his suffering. In the year 1819, while serving in India, I had a very severe attack of dysentery. Shortly afterwards the rectum became relaxed, and continued to do so until the year 1824, when it became a confirmed case of prolapse of the rectum; from which time until I consulted Dr. Brown, in April, 1857, it has continued to trouble me, not only at the times of evacuation of the bowels, but when I make use of any exertion, such as in rowing a boat, digging, &c., and at times when simply walking. Previously to my consulting Dr. Brown, I had repeatedly made use of various astringent applications, from none of which, although given the fairest trial, did I receive the slightest benefit.

After the first application of the acid, the prolapses did not descend except when stooling, and then but partially; and after the second application it ceased to do so altogether, unless the bowels were confined or too relaxed, and then even so slightly as to require no force beyond the contraction of the rectum to return it.

The prolapse in this case was of so extensive a nature that on the occasions which I used the acid, I applied it in a very small quantity. So large a portion of the mucous membrane of the rectum was included in the protrusion, that I was afraid a larger application of the escharotic would perhaps produce untoward results from inflammation and sympathetic irritation.

I purpose applying it, if necessary, two or three times again; when, judging from the very great improvement and comfort which it has afforded already, I am very sanguine of its resulting in almost a perfect cure.

REVIEW.

ART. XX.—*A Collection of Remarkable Cases in Surgery.* By Paul F. Eve, M.D., Professor of Surgery in the Medical Department of the University of Nashville. pp. 858. 1857. *Philadelphia*, J. B. Lippincott & Co.; *Montreal*, B. Dawson.

As this book is simply what its title implies it to be, viz. "a collection of remarkable cases in surgery," it is, of course, not open to criti-

cism. We cannot do better, therefore, than transcribe, for the information of our readers, some portions of the author's introduction. "In preparing notes for lectures on surgery," says Professor Eve, "I have often been struck with surprise at the number of extraordinary and remarkable cases found scattered through our periodical literature. It has occurred to me that a collection of these facts might be made available to the profession. Such a contribution has never been given to surgery. The assembling of detached cases of a most interesting and striking character, and classifying them under appropriate heads, cannot be a work of supererogation.

If the whole of our art is in observation, and medicine is only enriched by facts, then surely a collection of the most remarkable must prove of essential service to its cultivators, not only in lightening their labors, but in aiding them in establishing the principles of the science. Harvey says there is no way more calculated to advance the proper practice of medicine than to give our minds to the discovery of the usual law of nature by a careful investigation of the *rarer forms* of disease. * * * * The collector has not presumed to suppose this to be a collection of *all* the remarkable cases which have occurred in surgery, but of course only those accessible to him most deserving a place, and entitled to credit. The object has been merely to gather for preservation the valuable material now existing mostly in a perishable form; to collect the important and instructive cases from our journals, &c., and arrange them for future reference, and, whatever else may not be derived from the work now before the reader, it certainly suggests one practical lesson,—this is, not to be easily discouraged in desperate surgical cases."

The typography and general finish of the book, like that of all the works published by Messrs. Lippincott & Co., are excellent, and worthy of all praise.

CLINICAL LECTURE.

On Specific Cases of Gangrene, from Traumatic Injuries of the Internal Coats of Arteries, &c., requiring or not requiring Amputation, &c. By Edward Stanley, Esq., F.R.S., F.R.C.S., Surgeon to St. Bartholomew's Hospital.

(*Medical Circular.*)

Gentlemen,—There is a boy in Abernethy ward who was admitted into the hospital exactly a fortnight ago, with bad compound fracture of his femur—complete smash of his thigh, in fact—from his having become entangled in the wheels of a carriage in the street.

I wish to draw your attention to this subject to day (October 12, 1857), that you may watch the progress of the case, perhaps more especially indeed as there is a great surgical principle involved in the case,—a principle, I say, of great practical surgical importance, which any of you any day may be called upon, even in the most routine practice, to express an opinion about. This principle is the following:—That in all severe surgical injuries of parts, where the great vessels are torn across, and whether the bone be broken or not, we have gangrene to fear, and we shall best consult the safety of our patient by having recourse to amputation as soon as possible.

I will now read for you some cases, which I think, as "teaching by example," will make the subject clearer than it otherwise would be without such examples.

One day during the vacation, a case occurred, a very striking instance of injury of the large vessels of the popliteal region, followed by gangrene. I give you the case now out of my own private note-book; and here I would advise you all, if you want reliable surgical data to act on in after-life, to take notes of hospital cases yourselves; the labour is considerable, but you will be well repaid. Well, this case, [reads] headed "Gangrene of the Leg, consequent on Rupture of the Popliteal Vessels," runs as follows:—A boy, aged 9 years, was playing in the street at some children's game, where he had to run a distance, and touching something of wood, to run off again. He was in the act of turning round with his knee bent to run off, when a certain heavy window shutter he had touched fell on his leg, in the region of the ham, knocking him down, but not apparently at the moment injuring the leg (judging by the integuments, which were not broken), nor was any bone injured.

The lad was brought to St. Bartholomew's, and I saw him an hour after his admission. The boy was terribly weak and depressed; his pulse was scarcely perceptible at the wrist. On examining the back of the knee, over the popliteal vessels, very considerable swelling had already become apparent; the lower part of the limb also was mottled. There was no breakage or injury apparent, as regarded the integuments at the the back of the knee; no pulse, however, could be felt in the anterior or posterior tibial artery. The swelling in the ham was increasing every quarter of an hour. I punctured the swelling, and a few drops of black blood exuded. The case was too clear; the limb became colder and colder. I decided to amputate, as it was quite evident the larger vessels had been injured.

The very serious and unusual depression under which the poor boy laboured may be judged from the fact that we were almost afraid to

carry him out of his bed to the operating theatre. After he had taken some brandy and water, however, he rallied a little. Yet now, having him in the operating theatre, we had next our doubts whether it would be safe to risk the depressing action of chloroform. A consultation was held as to what was best to be done. The boy was prostrated to the very uttermost; bleeding of some kind or another, arterial or venous, was evidently infiltrating the limb with blood; the vital cerebral action was sinking, and the question debated was, Would not the sinking caused by the full action of chloroform* add further to the mischief, or in fact precipitate the worst that could happen? This point, it will be remembered, was debated in the late Crimean war; in the French army it was decided in the negative. Well, we adopted the golden mean of medicine: we gave him a whiff or two of chloroform, then some brandy and water. [And here it is that your assistant who administers the chloroform, may, by his tact and skill, by watching the pulse, &c., assist you with his advice. It is a most delicate point.] The pulse improved under the brandy and the chloroform, and I took off the limb by a quick circular incision about the middle of the thigh. There was not a great deal of blood lost, and the chloroform seemed to act as a great boon, as it usually does in such cases. We examined the limb with some interest, and found the popliteal vessels, both arterial and venous tubes, to be torn right across,—the divided ends two inches asunder. This peculiarity of arterial coats to retract is very remarkable. It is more evident in arteries which are lacerated, as first pointed out by Cheselden, than it is where arteries are merely cut, as we see them every day in the operating theatre. This poor young fellow, then, sustained this severe injury of his popliteal vessels by the fall of this shutter. Now it is not easy to explain why, of all the various tissues of the part, the arteries should thus give way and become lacerated, though the integuments remain sound. It is one of the most serious points you may have to decide in actual practice. I now will give you a third case, still more remarkable; it occurred about a year and a half ago. It is that of a man, aged thirty-five, who sustained compound fracture of the femur, followed by profuse hæmorrhage.

* Mr. Le Gros Clark and others have dwelt on the absurdity of laying down a general rule for the administration of chloroform to *all* patients indiscriminately. None but persons unaccustomed to London hospitals, mere amateurs in the British Medical Association and elsewhere, could mislead rural practitioners by holding such a universal doctrine. It is a curious feature in London hospital-practice during the last six months, that several patients have obstinantly refused to take chloroform themselves in most painful operations, alleging as their reason that Parliament has placed chloroform amongst poisons!

He was engaged propelling a large block of stone, which was overturned on his thigh. The bone was observed protruding through the limb. The pulse at the wrist was scarcely perceptible. We applied a tourniquet to the thigh, and administered constantly small quantities of brandy and wine. The limb was cold, and, as I mentioned in the other case, it became quite "mottled," a sign so characteristic of gangrene. There was nothing for it in this case but amputation at the hip-joint, but we did not deem ourselves justified in recommending it.

The femoral vessels were seriously injured, so recourse to amputation here was out of the question. Even in cases where amputation of the coxofemoral articulation is advisable, it is best to do it as a secondary operation.

The point of distinction you will now see between these two cases. In that of the boy there was just vital force and power sufficient remaining to recommend amputation; the fall of the heavy window-shutter had not done as much mischief as a stone of two tons. In the man there was unfortunately no alternative left but to decline operation of every sort, so as at least not to hurry the poor man's dissolution. A stone of two tons weight had literally crushed the life out of the whole limb.

You will always find very considerable "shock," with collapse of the vital powers, in all such severe injuries as these under consideration. Nay, more, you will sometimes find, from idiosyncrasy of constitution, that excessive excitement of the brain may follow, with constitutional symptoms and delirium. These cases, too, require special study in relation to chloroform.

Well, so far so good. Are we now in a position to say whether there is anything else that may happen in cases of severe injury, such as these we are speaking of? Yes. Another complication of an apparently simple injury is this:—A considerable force may be applied to a limb, as in the cases just given; the *external* coat of the popliteal, for instance, may be uninjured, but the *inner* coats torn completely across, causing effusion of blood in the surrounding tissues.

We had a very obscure case of this kind, which I will now relate. A man, aged thirty, sustained an injury in the popliteal region. There was intense swelling of the part, with swelling in fact of the entire limb. The temperature became diminished, but pulsation not entirely destroyed. The case, in a few words, may be described as exceedingly obscure. The man died after a lapse of ten days; amputation had not been done, as the case did not appear of sufficient gravity to require such extreme measures. Well, what did we find? The popliteal artery completely torn in its inner and middle coats, but the exterior coat uninjured.

Well, Gentlemen, after these preliminary remarks we are now in a better position to understand the case in "Abernethy" ward:—It appears that, on the last day of September, this boy was riding behind a cab or carriage, when his leg was caught in the wheel. He was brought to the hospital with extensive injury. You doubtless remember the case as seen the day of the "Introductories," the middle of the shaft of the femur protruding through the integuments, the poor child being thus terribly mutilated. What did we find on examination? He was suffering from severe prostration; the pulse was absent also in the anterior and posterior tibial arteries. In a word:—At first we made up our mind the femoral artery was ruptured. I remember, on coming to the hospital, the operating theatre was lighted up, as it was all but decided to amputate. Well, we did not amputate, as you are aware. There was the leg, cold it is true, and deprived of pulsation in the tibials. We waited for fifteen minutes, talking at the bed-side, and by degrees I began to feel a little creeping pulsation in these vessels (it shows us how necessary it is to be very careful in our examination of surgical patients). The light in the theatre was put out, and the instruments returned to their cases. In place of amputation, we treated it of course as a bad compound fracture. The thigh was placed on a long splint, and we have supported the system of the lad as much as possible, by wine, beef-tea, &c. During the progress of the case, there has been a very curious symptom,—intense sensitiveness of the surface of the body. I began to think, in fact, at one time, that there was fracture of the pelvis, implicating or irritating the spinal canal. Nor are we quite certain yet that these parts have entirely escaped the shock of the accident; the sound limb has got swollen also, and there is fluid effused into the knee-joint; all which makes the case one of great difficulty and doubt. Mr. Lawrence, Mr. Skey, and my other colleagues, agreed in the propriety of what we are doing, viz. to support the patient well, and strive to save the limb. The youth of the patient is in his favour as far as regards the latter indication, and, whatever be the result of the case, all the best rules of surgery as observed in such instances, have been followed. Now as to the fracture of the pelvis.

You see here [Mr. Stanley exhibited the specimens from the museum] we have an instance of fracture of the pelvis from exactly the same cause, separation of both sacro-iliac symphises, separation also of the cartilage of the symphisis pubis, as well as a tearing asunder of the lower epiphysis of the femur; all brought on by the horrible shock to this part of the frame, in a boy whose body was entangled in the wheel of a carriage and dragged violently round and round,—an accident you will

perceive, nearly identical with that sustained by this boy also. This tearing asunder of the epiphysis of the femur is very unusual and remarkable, though the strength of epiphysis in general is due rather to the investing periosteum carried over them than to the cartilaginous matter interposed between the end of the bones; thus a part like this will require a force of 550 lbs. to separate the parts with the periosteum intact, but only 119 lbs. if you strip off the periosteum! and this membrane in the young subject is peculiarly tough and thick; but then remember a child dragged about by the spokes of a cab-wheel in motion,—a force sufficient it may be presumed, to tear such parts.

The *rationale* of this case is now very obvious to you. The pulsation has returned in the limb. The temporary suspension of the pulse in the tibials was, in all probability, due to some local disturbance of the broken end of the bone during his conveyance to the hospital, by which the ends of the bones pressed on the femoral artery, this pressure becoming altered by some accidental manœuvre, or manipulation of the limb, as we were subsequently examining it. You see thus, at once, what a serious difference it makes, whether we find this evidence of injury of the coats of vessels or not—all the difference, perhaps, between saving the life of our patient, as in this case in Abernethy ward, or subjecting him to the risk of amputation, with consequent mutilation, almost equal to death itself, where the working classes have to earn their own livelihood by active employment.

THERAPEUTICAL RECORD.

(*From the Virginia Medical Journal.*)

Fever.—Dr. Jacob Rosenthal gives (Wurtzburg Verhandlungen, 1856) a full report of an epidemic of abdominal typhus (enteric fever) which prevailed in the commune of Gerbrunn in 1854. This epidemic lasted five months, and affected a fourth of the entire population of the town. It was characterized by absence of exanthem, invariable hypertrophy of the spleen, extent of abdominal affection, frequency of confervoid growths about the month and pharynz, by a long convalescence and a small rate of mortality. Of Dr. Rosenthal's 115 patients, 12 died.

Pneumoniania.—Professor Wunderlich of Stuttgard publishes (Vierodt's Archiv. f. Phys. Heil. Jan. 1856) an analysis of 204 cases of pneumonia, treated in his clinical wards in a period of five years, with a view to determine the influence of blood-letting in this disease. The mortality was 36; but deducting the cases that were hopeless when brought to the hospital, it is reduced to 11.57 per cent. Venesection was practiced in three of the fatal, and 14 of the successful cases. We refer to this paper in order to command it to the attention of physicians investigating the subject of which it treats.

Scrofula.—In the English hospitals, iodide of cadmium is comming into general use as a substitute for the iodides of lead or zinc in the preparation of resolvent ointments. It makes a white ointment, said to be very effectual in dispelling glandular enlargements.

Strychnia and the Woorara Poison.—Dr. Vulpian (L'Union Médicale, Jan. 1857) has made some experiments on animals with these poisons, in consequence of a suggestion by Dr. Thibeaud that they are antoffonistic in their actions, and might therefore be employed as antidotes to each other. The result, however, is that Dr. Vulpian does not consider woorara an antidote to strychnia, and that it is equally inefficacious, and may be mischievous, in the treatment of tetanus.

Tannin-draught in Chronic Bronchitis.—Dr. Berthel (Bulletin Général Thérapeutique, March 1857) recommends the following draught in bronchitis of long duration ; 20 centigrammes of tannin, 5 centigrammes of belladonna, 15 centigrammes of hemlock, 90 grammes of infusion of senna, 50 grammes of fennel water, and 50 grammes of syrup of mallow. A tablespoonful to be taken every two hours.

PERISCOPE.

On the Proximate Cause and Specific Remedy of Tuberculosis.—Abstract of a paper laid before the Academy of Medicine of Paris, on the 21st of July, 1857. By John Francis Churchill, M.D.—The total number of cases of phthisis treated by me amounts to thirty-five. All were in either the second or third stages of the complaint; that is, they had either softened tubercles or cavities in the lungs. Of these nine recovered completely, the physical signs of the disease disappearing altogether in eight out of that number ; eleven improved considerably, and fourteen died ; one still remains under treatment.

I believe that the results, of which the preceding is a summary, taken in connection with the considerations I have set forth at length in the paper now in the hands of your Hon. Secretary, will be found to justify the following conclusions :—

The proximate cause, or at all events an essential condition of the tubercular diathesis, is the decrease in the system of the phosphorus which it contains in an oxygenizable state.

The specific remedy of the disease consists in the use of a preparation of phosphorus, uniting the two conditions of being, in such a state that it may be directly assimilated, and at the same time at the lowest possible degree of oxydation.

The hypophosphites of soda and lime are the combinations which hitherto seem best to fulfil these two requisites. They may be given in doses varying from ten grains to one drachm in the twenty-four hours.

The highest dose which I have been in the habit of giving to adults is twenty grains.

The effect of these salts upon the tubercular diathesis is immediate, all the general symptoms of the disease disappearing with a rapidity which is really marvellous.

If the pathological deposit produced by the dyscrasy is of recent formation, if softening has only just set in and does not proceed too rapidly, the tubercles are absorbed and disappear. When the deposit has existed for a certain time, when the softening has attained a certain degree, it sometimes continues in spite of the treatment; and the issue of the disease then depends upon the anatomical condition of the local lesion, on its extent, and upon the existence or non-existence of complications. I have made numerous attempts to modify the local condition of the lungs by the inhalation of different substances, but have never obtained any satisfactory result independent of what was to be attributed to the specific treatment. The hypophosphites of soda and lime are certain prophylactics against tubercular disease.

The physiological effects which I have observed to be produced by the use of the hypophosphites of soda, lime, potash and ammonia, show these preparations to have a two-fold action. On the one hand, they increase the principle, whatever that may be, which constitutes nervous force; and on the other, they are the most powerful of hæmatogens, being infinitely superior to all medicines of that class hitherto known. They seem to possess in the highest degree all the therapeutical properties formerly attributed by different observers to phosphorus itself, without any of the danger which attends the use of that substance, and which has caused it to be almost forgotten as a medical agent. The different preparations of hypophosphorous acid will undoubtedly occupy one of the most important places in the materia medica.

The Academy resolved that the paper be referred to a committee, consisting of MM. Louis, Trousseau, and Bouilland.—*Dublin Hosp. Gazette, Aug.* 15, 1857.

Of the Nature of Phthisis, and particularly of the Pre-tubercular Stage. By Dr. E. Smith. (*Lancet*, Nov. 1, 1855.)—After pointing out the advantages of special hospitals in the study of disease, the object of the author is to show: 1st, That the treatment of phthisis, in order to be commonly successful, must be in the pre-tubercular stage; 2d, That there is a pre-tubercular stage which is capable of easy demonstration, and in which treatment would commonly prevent the deposition of tubercle; and 3d, That the nature of phthisis essentially consists in a lessened in-

spiratory action of the air-cells of the lung. He admits that phthisis is induced by a multitude of causes, but he affirms that the tendency of all these is towards exhaustion, and that they, although many, have one common mode of action in inducing the disease. He criticises minutely the prevalent opinion, that phthisis is a disease of the blood, and proves that whatever may be the state of the blood in the disease, there is no universal condition of it which attends the origin of the disease, or which is really causative of it. The state of the system, which is one of the causes of phthisis, is one of both solids and fluids, and is to be expressed rather by a general predisposition to the disease than by the specific state of the part of the system, viz. the blood, in which the elements of the disease had never been found, or had been directly transmitted to another system. He also proves from his own investigation, that the function of alimentation was not at fault as causative of phthisis, by showing that the quantity of food taken in the early stage is equal to that in health; and by reference to the fæces, solids in the urine, biliary and cuticular excretions, he showed that there was then no larger excretory waste than occurs in health. The lessened action of the air-cells he proved from the lessened vital capacity, feeble respiratory power, and lessened mobility in the early stage of the disease, the consequently lessened vesicular murmur, increased harshness of respiration and flattening of the chest, with or without slight dullness, indicative of atrophy of the lung. He also proved that the signs of lessened vesicular action are found in all those cases, which, by common consent, are said to be prone to phthisis, and mentions instances in his own practice at the hospital in which the vital capacity was reduced to the extent of two thirds or half of the healthy quantity, without there being any evidence of the deposit of solid matter in the lung. This stage of lessened vesicular inspiratory action, without any evidence of tubercular deposition, he designated as the first stage of the disease, one in which every hope of success may be entertained from suitable treatment. The second stage was that of tubercular deposition, and the third that of destruction of tissue, whether to the extent of softening only, or to the further degree of the formation of a cavity. He then proceeds to show the connection between the act of inspiration and the circulation through the lungs, and the importance of maintaining a balance between the systematic and pulmonic circulations, and explains the especial liability of the apex of the lung to tubercle, by a consideration of the mode of action of the lung, whereby the cells at the apex must at all times be less perfectly distended than those at the base, and consequently have less circulation and vital influence. He discards the notion of the deposition of tubercle in the lung from

the blood, and, having referred to Dr. W. Addison's theory of the formation of tubercle on the lung from degenerated epithelium, shows how readily the air-cell is rendered fit to be a receptacle of such morbid products when its action and vital influence are lessened or lost. The extreme liability of the lungs to the deposition was not from any question relating to the blood, but from a consideration of the peculiar action of extrusion and retraction of the air-cell (as he had demonstrated), and from the immense number of such filled receptacles as the air-cells of the lungs offered. He believes that phthisis and scrofula are distinct diseases, and that, whilst they may be sometimes causative of each other, their co-ordinate occurrence was chiefly accidental. Dr. Smith also explains the occurrence of haemoptysis before the deposition of tubercle, upon the principles now laid down, and points out the impropriety of any attempt to arrest it directly, and also of interfering with that degree of increased frequency of respiration and pulsation which nature sets up as a prophylactic measure when the amount of circulation in the lungs is so greatly lessened as it is in all stages of phthisis.

On the Treatment for the Arrest of Phthisis. By Dr. Edward Smith, Assistant Physician to the Hospital for Consumption at Brompton, (*British Med. Journal*, Jan. 10, and Feb. 7, 1857.)—After having investigated the subject in a very careful manner, Dr. Smith has arrived at the conclusion that alimentation is *not* at fault, since the quantity of food taken is equal to that in health, since digestion is good, and the waste of material not greater than in health, and that the respiration is at fault. The theory propounded is that the disease essentially consists in the lessened action of the air-vesicles, and that it is commonly due to anterior conditions of the general system of a depressing nature. These general conditions are in part, probably, certain atonic states of the nerves of organic life, and more particularly of the sets of those nerves and of the communicating branches of the cerebro-spinal system which preside over the involuntary and also the voluntary action of the lungs.

The treatment recommended may be summed up in the following sentence: Forced inspirations, out-of-door exercise, good and frequent food, sleep, early rising and retiring to rest, cool, moist air, cold washing, moderate excitement of the mind, and medicinal tonics. There is also another, which may rather be considered a prophylactic of phthisis, and which, in his opinion, is of far greater value than the community at the present day admit; viz.: athletic exercises, and country sports and games.

The means upon which Dr. Smith lays most stress is that of "mechanical distension of the air-cells to a degree beyond that which takes place perhaps in health, but certainly in the state of enfeebled respiration in which we find the patient. This may be effected by bodily exertion, which tends directly to increase the frequency and the depth of inspiration; and as this mode is so consonant with our knowledge of the laws whereby health is maintained, no objection will be urged to it. But to my mind there is the objection that, in phthisis, whether before the manifest deposition of tubercle, or afterwards in the early stages of the disease, the pulse is frequent proportionately to the respiration; so that the respiration is to the pulse, not so as 1 to 4, but as 1 to 5, 6, or 8. I have paid much attention to this matter in a long inquiry which I have prosecuted at this hospital, and am assured that, in the early stage of phthisis, the proportion of the two functions is commonly reduced. Now the pulsation is at least frequent enough, and it is not uncommonly too frequent; and hence we do not need to apply any remedies which may increase the rapidity of the blood-current. But exercise of body, and even the sitting and standing postures, do increase the blood-motion; and, although they at the same time increase the rapidity of breathing, they do it in a less ratio than the former. Whilst, therefore, bodily exertion may be useful, and is indeed necessary in giving more rapidity and depth to the respiratory effort, it is not an unmixed good. But we must not forget that the quiet motion of the body, which is now said to be bodily exercise, does not excite the depth of inspiration sufficient for our purpose; and it is only when it becomes so great as is needful in athletic exercises that the desired result is attained. Hence the directions which we commonly give are of little avail, although the tendency of them is right. Yet with the violent bodily exertion referred to, the rapidity of the blood-current is greatly increased, and at the same time there is a proportionate diminution in the deposition of material in the tissues, and in the due action of the air upon the blood in the lungs. Thus lessened growth of body occurs, with, at the same time, less vigor of vital processes, and a waste of material through the eliminating organs. This must result when the body is in health; but then the temporary evil is either easily borne, or is compensated by good; but when, in phthisis, at least in the tubercular stages, we find a tendency to a constant rapidity of current, and consequently to lessened growth of tissues, we must attach a greater degree of importance to it. The effect of much exercise in phthisis is, therefore, evil certainly, although, at the same time, it may be, but less certainly, good.

Now is it possible to meet this difficulty, and to find a mode whereby

the depth of the inspiratory act shall be increased, and yet the rapidity of the blood-current not sensibly promoted? Perhaps not, in the fullest sense of the inquiry; but I think it may in a limited yet important sense. I refer to voluntary attempts at deep inspiration. This cannot be continually effected, since volition cannot be at all times directed to that end; and if it could, the very act would fatigue the system; but it may be for a limited period at a time; and the very instruction thus given, if properly explained, will induce the patient to guard against that shallow respiration which is so constant a feature of the complaint. Thus the mind would be directed to an object of value; the spirits would be excited by hope; and the evils attending a listless and enfeebled habit of respiration would be in some degree guarded against. This object is doubtless attempted when the patient is directed to use calisthenic exercises, as the use of the dumb-bells; and there cannot be a doubt that the vigorous employment of such means may excite inspiration. But it is one thing to throw the arms about, and another to make that conducive to the deep inspiration. We must admit that, whilst the object is good, the practice has commonly defeated the object, and that perhaps in a great degree from the want of knowledge on the part of the patient to enable him to make his efforts efficient. Moreover, I am not clear but that sometimes, and perhaps frequently the effort now referred to lessens the frequency, and without increasing the depth, of inspiration; for nothing is more common than for us to hold our breath when making any unusual voluntary exertion.

I think that nothing less than direct voluntary attempts to breathe deeply would effect the object we have in view; and even this is certain to fail unless it be carefully effected. The seat of mischief is chiefly in the upper lobe and the apex of that lobe. Now, if we take an ordinary inspiration, we find that the expansion of the chest is disproportionally greater in the lower than in the upper half of the chest; and when the respiration is unusually feeble, this disproportion is so much the greater that scarcely any breath-motion may be detected under the clavicles. But on deep inspiration, the first sensation of fulness is at the base of the lungs; and that sensation gradually rises as the depth of the effort increases, until, at the very end of the deepest inspiration, the sensation is felt at the apex. This may be readily proved by any one who will take the trouble to try it carefully upon himself. Now in this very fact lies the difficulty of the matter. It is almost impossible to persuade a phthisical patient to take an inspiration of the depth referred to; for his habitual shallowness of effort induces him to consider *that* a deep inspiration in which the lung is by no means fully distended. It is my

habit to show the mode and the required depth by my own inspiration, and to inform them that it is only the *very end* of the deep inspiration which is of service to them. Our aim should therefore be to have the deepest inspiration performed as often as we think right, with a view of thus preventing the process of closure, which is, in my belief, the mode of action of the disease. If there were not a serious objection to the introduction of any instrument as a part of medical treatment, I should advise the employment of a spirometer, which would measure the amount of air inspired; and this, whilst engaging the patient's attention, would enable him to regulate his voluntary efforts, and to ascertain the result. I have several in use; and after a repeated employment of them in determining the amount of vital capacity at various periods, the patients have expressed much gratification in the assurance that they felt much better from this forcible attempt to inspire deeply.

I fear that this may be thought too mechanical a plan of treatment; but I beg to observe, that the very existence of the air-cells themselves is in part due to the mechanical introduction of air within them. There are no developed air-cells in uterine existence; and even during the first early period of extra-uterine life they are so slightly developed as to be said not to exist at all. When the air is first admitted into the bronchi, there are no true cells such as may be found in later life; and the period of their development is that of breathing, and their maturity is due to the continuance of the effort. Thus the development of the air-cells may be said to be due to the mechanical agency of inspiration. Moreover, we know how greatly the depth of inspiration is due to volition, to the thousand necessary occurrences of daily life, and to the effect of other diseases; and we admit at once that the effort of inspiration varies under these several conditions. Hence it is not unphysiological to direct an effort to make the act of inspiration perfect (as we daily do to render the digestion of food perfect), and to keep in a due state of distension, or to increase the existing degree of distension, of the air-cells of the lung.

I do not know if any difficulty would present itself to any mind in reference to the limitation of the lessened action, or of collapse to isolated small portions of the lungs, as is believed to exist on this theory. Perhaps it is more easy to understand how the whole organ may be influenced, rather than a part of it; but in addition to the special disposition which must exist in the upper lobe, and especially of the apex, from the direction and depth of the air-current in inspiration, I may refer to the fact that the atelectasis of the newly born is always partial, and may be even limited to one or to several isolated and separated

lobules. Hence it may be said to act only on individual cells, and is a fair illustration of that which is believed to exist in the early stage of phthisis. The one is not more difficult of belief than the other.

To show that voluntary inspiration not only may, but has been defended on physiological grounds I would refer to a remark made by Lehmann, vol. iii, p. 382. In reference to excretion of carbonic acid largely, he says: "We may perhaps aid a tuberculous patient quite as much by recommending him to respire warm moist air, as if we prescribed lichen or cod-liver oil. Instead of tormenting an emphysematous patient suffering from congestion, and of hemorrhoidal tendencies, with aperients and saline mineral waters, we might relieve him far more effectually by recommending him to practise artificial augmentation or expansion of the chest in respiration (filling the lungs several times in the course of an hour,) or to take exercise suited to produce this result; while we should forbid the use of spirituous drinks, and not prescribe tinctures, which might hinder the necessary excretion of carbonic acid."

In advising this course, I do not for a moment refer to any increased chemical influence which the increased volume of air may or may not have upon the blood, neither do I make use of the theory that by this means we effect pressure upon tubercle, and promote its absorption; I only claim for it that it will tend to prevent the decay and the closure of the cells from inaction, and thus prevent the further deposition of tubercle in cells which are not already rendered useless by or with it. But it is fair to infer that there must be by this means a more complete renewal of the residual air, and thereby a further benefit be obtained. It may, however, be proper for me to refer to the experiments of Vierordt in reference to the influence of voluntary respiration in promoting the evolution of carbonic acid. He ascertained that the more frequent the respiration, the less percentage of carbonic acid was evolved; but as the total quantity of air taken into the lungs was increased by an increased number of inspirations of a uniform depth, the total quantity of carbonic acid evolved in a given time was greater than with fewer inspirations. Thus:

With	12	inspirations	per	minute	13½	cubic	inches were evolved.
"	24	"	"		24·2	"	"
"	48	"	"		42·5	"	"

And in reference to variation of depth, the frequency being constant, he proved that, with an inspiration twice as deep, the quantity of gas evolved was the same as when the inspiration were three times as frequent, the depth then being constant. Thus the objection which is so

commonly raised to voluntary attempts to respire, viz. that it does not increase the vital force, is incorrect; for, in practice, we are not concerned with the percentage evolution of carbonic acid, but with the total evolution in a given period.

The reason for the large increase in the amount evolved by an inspiration simply twice as deep as an ordinary one, is, that the air in the air-cells is richer in carbonic acid than that in the minute bronchial tubes, in the proportion of 5 to 3; and hence, as a deeper respiration causes more movement in and exchange of the residual air, the air-cells must lose a larger quantity of the products of respiration. Hence the remedial influence of deep voluntary respiration is both mechanical and chemical.

The effort now recommended may weary the patient; and hence I have thought it enough if the patient thus deeply, slowly, and gently respire for five minutes at a time, and on three or four occasions in the day, at the same time explaining the object, and recommending him to avoid shallow breathing in his ordinary respiration. Thus fatigue is avoided, and yet probably the effect is obtained.

It is, however, essential to the success of this plan, that it should be fairly carried out: and if, from other causes, no success results, I do not know of any mischief which could possibly arise from this. Success will, of course, be dependent upon many causes, and hence neither this nor any other single plan of treatment can be exclusively relied upon. It has, however, this merit, that it is of almost universal application, has evidently a tendency to improve the health, and cannot do harm. When there is no tubercle deposited, I am of opinion that the plan, if fairly carried out, can hardly be inefficacious; but in the last stage of phthisis the possibility of arresting the disease by any means is very small.

5.—*On the Diagnostic Value of the Symptoms indicative of Pulmonary Cavities.* By Dr. N. Frederich. (*Verhadnl. der Phys. Méd. C. in Wurzberg*, Seib. Bd., 1856; and *Med. Chir. Rev.*, April, 1857.)—The cracked-pot sound, the tympanitic percussion sound, the amphoric and metallic respiratory sounds, are in this paper examined in relation to the diagnosis of pulmonory cavities. We recently drew attention to Professor Bennett's observations on the occurrence of the cracked-pot sound in various conditions unconnected with cavities. Dr. Cockle has also shown that it may occur in cases of simple bronchitis. Dr. Friedreich gives three cases of pleurisy in which this sound was met with. In the first (a man aged twenty-two), it occurred in the left infra-clavicular region, at the time when the effusion on the same side was

receding, and it lasted until its complete absorption. In the second (a man, aged twenty-two), the sound occurred from the commencement of the affection, and whether the nose and mouth were opened or closed, in the left infra-clavicular space, as far as the third rib, to which the pleuritic effusion reached. It disappeared before any change in the exudation was perceived. In the third case (a man aged twenty-three), the *bruit de pot-fêlé* was produced, the mouth and nose being open, at the upper left side, down to the third rib, at which point the effusion commenced. The patient was still under observation when the paper was written. With regard to the occurrence of the sound in healthy subjects, Dr. Freidreich has failed to discover it in the adult, but on examining forty-six children under fourteen years of age, he met with it twenty-six times—fourteen times audible on both sides anteriorly, but only in five equally loud—in the other cases, generally louder on the left than the right side, and only twice louder on the right than the left. In explaining the production of the cracked-pot sound, Dr. Freidreich opposes the theory that it is due to air being forcibly expelled through the glottis; because, on applying the stethoscope to the larynx, while another person produces the sound, no indication of its formation at the glottis is obtained. In bronchitis and early infancy, he believes the production of the sound to be due to the compression of the smaller bronchi during the act of percussion. He adopts Skoda's theory of its production in phthisis, while in pleurisy he attributes it to compression of the pulmonary tissue by the exudation and the forcible expulsion through the smaller bronchi of the air contained in them, when percussion is employed.

Lupulin in Irritable Bladder.—Dr. Wood said that some months since he met with a case of irritable bladder, in which the desire to urinate was very frequent and distressing. Owing to the peculiar susceptibility of the patient, it was impossible to use opium, and other narcotics were entirely without effect. It then occurred to him to try lupulin, which Dr. Page first, and others after him, have found so efficient in allaying irritation of the genital organs. Dr. Wood administered five grains every two hours, beginning towards evening, and continuing until its effects were experienced; and this plan was repeated daily. The patient rapidly improved under the use of the remedy. The improvement might have been accidental, but the case appeared to him of sufficient interest to be mentioned, as it might induce others to make trial of the remedy, and thus determine its value.—*Trans. of Col. of Physicians.*

The Sub-Carbonate of Bismuth.—The valuable properties of bismuth in counteracting many morbid conditions of the stomach, are well known. If it be inert in cases of structural diseases of this organ, or even if its effects be doubtful when employed in those affections depending upon inflammation or congestion of the mucous membrane, its efficacy in the various functional disorders of the stomach are too well known to be insisted upon. Among the symptoms for which it is most successfully precribed, are pain, vomiting and pyrosis. The form in which the metal is usually administered is that of the tris-nitrate, more commonly called the sub-nitrate. This substance is insoluble, and it is not improbable that some of the advantages following its use may be owing to this fact. The medicine acts locally upon the deceased part, and its sedative and anti-spasmodic effects are prolonged because it is not carried away by the circulation. Its very insolubility, however, is a bar to its influence upon the system at large; the secretions are not affected by it, and it produces no alteration upon the temperature of the body, or on the rapidity of the pulse.

Of late, a new preparation of bismuth has been strongly recommended by Professor Hannon, of the University of Brussels, who has been engaged in a series of experiments with a view to discover some form in which the metal may be administered which will secure its effects on the general system, as well as on the stomach; and the result is, that the *sub-carbonate* of bismuth promises, in his opinion, to answer these ends. This preparation is very soluble in the gastric juice, and its action is very prompt, without producing that sensation of weight in the stomach which often follows the use of the tris-nitrate; hence it can be continued much longer than the latter preparation. It rarely causes constipation, and does not blacken the stools.

Five or six hours after the ingestion of from ten to fifteen grains of the sub-carbonate, the pulse becomes more feeble, and diminishes from two to five beats in the minute; the urine is increased in quantity, and becomes more clear; the appetite diminishes. If the medicine is continued, these phenomena gradually disappear, and in the course of eight or ten days there is an increase in the muscular strength, the appetite improves, and the digestion becomes more easy. If the medicine be continued for too long a time, it produces a sensation of plethora. Thus, its action appears to be sedative during the early employment, and tonic afterward.

Its therapeutic effect resembles that of the tris-nitrate, but is more marked. It may be beneficially administered in all cases of gastralgia consequent upon an inflammatory condition of the stomach and

intestines, in which the tongue is red and pointed, the digestion difficult and accompanied by crustations, either tasteless or acid or by a tendency to diarrhœa or spasmodic vomiting. It has an excellent effect in the diarrhœa of infants, especially when occurring at the period of weaning. Its alkaline properties give it the very great advantage of neutralizing the excess of accidity which so often exists in the stomach in the various forms of indigestion.

These results of Prof. Hannon have not yet, to our knowledge, been confirmed by other observers, but his views seems so reasonable that we may venture to hope that experience will confirm the truth of them, and that we may be put in possession of a new and valuable remedy for many of those difficult and troublesome symptoms which accompany dyspepsia. —*Boston Med. Jour.*

Case of Ileus, with Operation, being an Extract from a Paper on Intestinal Obstructions, read before the Glasgow University Medical Society, December, 1856. By T. M'Call Anderson.

Mr. R., aged 32, had long been subject to confinement of the bowels, which he invariably relieved by a little opening medicine. However, on the 16th of May last, suffering from constipation, he took a colocynth pill and seidlitz powder, which failing to produce any effect, medical advice was called in. Various laxatives were tried, including repeated doses of croton oil and of calomel and opium, accompanied by turpentine and assafœtida enemata, but ineffectually. The constipation at this time was the most prominent symptom. The abdomen was tympanitic, and there was slight hiccup, but he had little pain, sickness, or vomiting. This was on the 20th of May. In the evening, however, he vomited some dark-coloured matter. On the 22d, enemata of tobacco were three times employed, which produced sickness, and vomiting of the contents of the stomach, which smelled distinctly of the injection. Enemata of croton oil were also made use of—a mode of administering this powerful purge which I believe to be new, but which did not produce the desired effect.

On the 29th, nine ounces of fluid mercury were administered, to try its effect in forcing a passage by its weight. It may be mentioned that at the time this was given, little confidence was placed in its efficacy by the medical men in attendance. No effect followed its use, and the pil. carbonatis ferri saccharisatum was then had recourse to. This was given as a tonic, on the supposition that the obstruction might be owing to atony of the gut; but as this was not the cause of the complaint, as the result showed, it produced no effect.

Almost daily attempts were made to relieve the bowels by the long gum-elastic tube, which seemed to pass into the colon, but probably doubled on itself. On the 1st of June a gutta-percha tube was introduced; and on withdrawal, it was filled with a feculent-looking matter; but whether it was fæces, or matter discharged from the diseased bowel, it was impossible to say. The tube was repeatedly employed, but gave no further insight into the nature of the case, and no relief to the patient.

During the whole of this period, the patient complained of no pain and no uneasiness, except what arose from the abdominal distension, which was considerable. His pulse varied from 84 to 96. Every medicine which had the least prospect of giving relief having been tried, the case was now clearly beyond the skill of the physician, and required the use of the knife. Accordingly, after consultation, an operation was agreed upon; and as the opinion was that the disease most probably lay in the sigmoid flexure of the colon, the seat of operation was on the left loin. On the 11th of June, twenty-seven days after the commencement of the obstruction, the following operation was performed by Dr. A. D. Anderson :—

The patient being put under the influence of chloroform, and being laid on his right side, at the edge of the bed, an incision was made an inch and a half above the crest of the ileum, commencing at the external margin of the erector spinæ muscle, and extending outwards for about four inches. First the integument and fascia, and then layer by layer of the muscular walls, were successively divided, and the descending colon was easily reached. A thick ligature was passed through it; it was drawn out and opened. At the first nothing but flatus came away; but soon after, a copious stool of half-liquid fæces, to the extent of a wash-hand basinful, was discharged. The margin of the opening in the gut was then secured to the edges of the wound, and a binder was applied round the abdomen, to support it after its distention; an aperture being left opposite the wound, which was covered with a light water-dressing. The patient was under chloroform the whole time, and said he had felt no pain; was relieved by the operation, and was confortable. An opiate was given an hour after, and in the evening he had had a good sleep, and free evacuations through the opening. Pulse 108.

On the 16th, suppuration had separated the wound, but it was easy; copious stools passed without pain, and containing the crude mercury. On the 2d of July, twenty-one days after the operation, he had quite recovered from its effects, was sitting comfortably in the parlour, and all was going on well. On the 13th, however, he was suddenly seized with rigors; acute peritonitis set in, and he never rallied, but gradually sank, and died on the following morning.

On post-mortem examination, a malignant tumour, of a colloid character, was found at the sigmoid flexure of the colon, which proved the cause of the obstruction; and in the cavity of the pelvis, in close proximity to the tumour, a quantity of pus was found, which had been discharged from it, and which was the immediate cause of the fatal termination.*

Such, then, was the lamentable result of what at one time promised to be a highly successful case, and it need hardly be said that the patient's death was equally sudden and unexpected. But this need excite no surprise, since the post-mortem examination showed that he was labouring under a fatal complaint. The operation, although it did not save the patient's life, certainly prolonged his days, and was clearly indicated. This operation which was proposed by Callisen, and first performed by Amussat, is an easy and safe one. There should be little haemorrhage, and the peritoneum should not be wounded, the colon being here generally uncovered by it; and it is much more likely to prove successful, and much less likely to come to a fatal termination, than the similar operation on the small intestines, where the peritoneum is unavoidably wounded, and where peritonitis is the almost inevitable result.

In conclusion, let us glance at these obstructions in a general way. Many may think with me that these cases are very rare, and not of every-day occurrence; but we have the authority of Mr. Phillips for stating that they are far more common than we can at all conceive. He has collected the results of no fewer than 2,392 post-mortem examinations, and he finds that in these there were 22 cases of intestinal obstruction; or according to him, "such obstructions are observed once out of every hundred post-mortem inspections." Such, then, is the importance of these cases in point of frequency. Let us now look at them in point of fatality. Mr. Phillips has collected the results of 169 cases, and he finds that the enormous number of 133 proved fatal; that is, 30 recovered, or only 1 out of every 5. They are, therefore, cases most difficult of treatment, and still more difficult to bring to a successful termination.

And lastly, as regards the treatment by operation, we find that, out of 44 cases in which an operation was performed, 15 were successful, or 1 out of every 3; so that here the proportion is better than in the last case, where we included every kind of treatment, and is therefore in favour of operation. But while this average shows that treatment by operation is good practice, no one will be so foolhardy as to attempt anything of the kind, till he has tried all the resources of the pharmacopœia, and that without avail; or till he has ascertained the probable nature of the disease, and that it is irremediable by medical treatment. Then, having satisfied

* The preparation is now in the Museum of the Glasgow Royal Infirmary.

himself that nothing will save the patient but an operation, the sooner he does it the better; for not only is the patient more able, in the earlier stages of the disease, to bear the shock of an operation, but the parts are in a better state; inflammation, sloughing, and other evils, have had less time to set in; and he is then much more likely to bring the case to a satisfactory conclusion.

Case of Empyema of the Left Plural Cavity treated by Injection of Iodine. By Daniel Brainard, M.D., Professor of Surgery in Rush Medical College, etc. Reported by Edward Powell, M.D.

Thomas S. Bryan, aged 16, a native of Norway, first came under the care of Professor Brainard, April 15, 1857, with empyema of the left plural cavity, the result of a wound.

The previous history of the case, as given by his friends, is as follows: Some five months since the patient received a stab in the left side, between the fifth and sixth ribs, just below the nipple, with a sharp-pointed knife, which was followed by difficulty of breathing, spitting of blood, etc. The external wound was closed with sutures and adhesive plaster, the patient was bled, purged, and confined to a low diet. At the end of three weeks the wound had healed, and the patient was able to be about; but the difficulty of breathing had not entirely subsided, and he suffered more or less pain in that side.

He remained in this state for the space of two months, when a pretty copious discharge of water took place from the wound, which had opened by ulceration; since which time there has been a constant discharge of extremely fœtid pus from the wound, and the patient was gradually becoming weaker and emaciated. The parents of the patient being in destitute circumstances, nothing was done for him during this time.

Present Condition.—The patient is now excessively thin; the skin presents a shrivelled and yellow appearance. There is a distinct bulging of the affected side, and one teacupful of fetid pus is discharged each day from the wound. The shoulder of the affected side is two inches lower than the other. He walks with the utmost caution, as the least jar or mis-step gives him great pain; in fact he is scarcely able to walk from one room to another without assistance. He is also affected with loss of appetite, chills, night sweats, and diarrhœa.

Treatment.—The opening was sufficiently enlarged to admit a gum-elastic tube of four inches in length, of the size of a number nine catheter, through which the plural sac was washed out, morning and evening, with the following solution :—

℞ Iodinium, j gr. Potassi Iodidi, iij grs. Aquæ Destillatæ, ℥ i. M. Ft. Sol.

The solution was thrown in with a strong syringe, and allowed to flow out again after remaining in for a few moments. If any smarting followed the operation, the cavity was washed out with cold water. The first effect of the iodine was to change the character of the discharge to nearly healthy pus, and afterwards to lessen the amount of suppuration. No bad symptoms at any time followed the use of the injection. Iodine could be detected in the urine. The patient was, in the meantime, placed upon as generous a diet as he could take, with the use of stimulants.

As he had a very intelligent friend to take charge of him, he was allowed to go into the country to his own home, and continue this course of treatment there, after having remained under observation for two weeks.

July 10th.—The patient returned to the office this morning from the country. It was surprising to see the improvement that had taken place; he has gained in flesh and strength quite rapidly. Suppuration is still going on, but not much, and the discharge is of a healthy character. The injections had been faithfully used while in the country. He was advised to pursue the same plan, and again returned to his home.

October 10th.—The patient again presented himself at the office, from the country. The suppuration had entirely ceased, and the external wound had healed soundly. Instead of the mere skeleton he was seven months ago, he now presents the appearance of a sound healthy boy.

I made a physical examination of his chest this morning, and could detect no difference in the two sides.

I am not aware that injections of iodine have ever heretofore been used or recommended in this country in cases of empyema; but such beneficial results followed their use in this case, that I think we should be justified in resorting to them in similar cases.—*North-Western Med. and Surg. Journal.*

On Bleeding from the Ear as a Consequence of Injury done to the Chin. By M Morvan. (Archives Générales, cinquième série, tome viii. pp. 653–654.)

Bleeding from the ear as a consequence of *contre-coup* has been accepted by surgeons be an almost certain indication of fracture of the base of the cranium. M. Morvan has, however, met with two cases in which injury to the chin gave rise to this phenomenon. The subject of the first of these was a robust lad, five years of age, who had, five or six

hours before the author's arrival, fallen on his face on the pavement from a height of several feet. Immediately after the fall, a large flow of blood took place from the right ear; this being continued, when M. Morvan saw him, only in occasional drops, in which condition it lasted for three days longer. No fracture or dislocation of the jaw could be detected, and the membrana tympani was not ruptured. The child suffered much from pain in front of the right ear, from attempts at deglutition, and from any movement of the jaw.

In the second case, a very strong man, aged forty-seven, received a kick from a horse on the chin, which almost deprived him of consciousness, and gave rise to an abundant jet of blood from the right ear. No fracture or dislocation could be found, but deglutition was excessively difficult. Prompt depletion dissipated the cerebral symptoms, and all went on well, a considerable amount of deafness remaining in the right ear. The membrana tympani was uninjured.

On searching, the author has been able to find only three analogous cases, and these only meagrely detailed, making thus, with his own, five cases. In three of these the blow on the chin resulted from a fall, and in two was produced by a kick from a horse. In three, the bleeding took place from one ear, and in two from both ears. In the author's cases the force acted obliquely, and the bleeding occurred on the opposite side to that of the point of contact. When bleeding has occurred from both ears, the blow has been central. In one only of the five cases did fracture of the jaw occur. In order to produce bleeding by this form of *contre-coup*, it is probably necessary that the shock should be entirely transmitted to the articulation of the jaw; while when fracture takes place, its force is usually exhausted in the production of the lesion of the bone.

In the three cases in which the point has been noted, the difficulty of deglutition and mastication has been excessive at first, and has continued for a long period; and M. Morvan suggests that the lesion which gives rise to this symptom, as well as the bleeding from the ear, is a fracture across the glenoid cavity, which explains the occurrence of the abundant hæmorrhage, the membrana tympani remaining entire. Some experiments he has made in the dead body by inflicting blows upon the chin, have failed to produce this form of fracture, but have induced fracture of the base. Thus no doubt can exist that this description of *contre-coup* may also produce fracture of the base, with bleeding from the ear, and rupture of the membrana tympani; but when we meet with such bleeding as a consequence of violence done to the chin, and without rupture of the membrane, the hæmorrhage may be regarded as a far less dangerous symptom.—*British and Foreign Medico-Chirurgical Review.*

On the Value of the "Rottlera Tinctoria" (Kameela), as a Local Application to Herpes Circinnatus. By William Moore, M.B., T.C.D., M.R.I.A., Physician to the Institution for Diseases of Children, Pitt-street, &c.

The rottlera tinctoria is one of the species *Euphorbiacea*, found along the base of the Himalayas, and at the Parrell Hill, near Bombay, as well as in other districts of Central India. It is a small-sized tree. The substance kameela is the powder with which the capsules, about the size of a cherry, are clothed; it is of a dark-red colour, has a peculiar odour, is used as a dye for silk, which it turns a deep bright-orange. The capsules are gathered in February and March, when the powder is carefully brushed off.

It is about a year since my friend Dr. Benjamin Simpson, of the Bengal army, first made me aware of the valuable anthelmintic properties of this agent, and, from his own experience of it, and that of some of his brother officers, I determined to obtain it, which I was enabled to do through the kindness of Dr. Thomas Beatty of the Bombay medical staff, who also enclosed me a letter from Dr. Giraud, Professor of Materia Medica in Grant's Medical College, Bombay, in which he says, "The kameela is the reddish-brown powder from thecapsules of the rottlera tinctoria. This powder is procurable in great quantity in the bazaars here, under the name of kapeela, and is used by the natives as an application for scabies and other skin-diseases. Its anthelmintic properties appear to be unknown here; but in Bengal it is extensively used as a vermifuge for all kinds of worms, but especially for tape-worm, for which it is successful, after turpentine and koosoo have failed."*

Dr. Beatty considers it an excellent application for ringworm, rubbed over the eruption, moistened with water.

The first case in which I applied it locally, was that of Mary P——l, aged eight years, who was brought to the Institution for Diseases of Children. She had a well-marked patch of herpes circinnatus on the neck, about the size of a sixpence; her head also presented several well-defined marks of herpes. On the 20th July I first rubbed the eruption on the neck with the kameela, applied on moistened lint.

22nd July.—The eruption was scarcely perceptible; I re-applied the kameela, which completely removed it. Some days after, another patch appeared on the anterior part of the neck, and one on the left forearm,

* On the vermifuge properties of this medicine you will find valuable papers by Drs. Mackinnon and Anderson, of the Bengal army, in the "Indian Annals of Medical Science"; and cases published by Dr. Gordon, of H. M. 10th Regiment, in the *Medical Times and Gazette*, 2nd May, 1857.

and in both cases one application of the kameela sufficed to remove them. The herpes capitis, which is quite cured, was treated with the Unguent Sodæ Carb. (℈i. to ℥ i.) and Lotio Sulphuret Potass ℥ i. to Oi.); the alterative treatment being Hydrarg. c. Cret. grains i., Pulv. Rhei. gr. iv., Pulv. Ipecac. gr. ¼, at bedtime, and a teaspoonful of Oleum Jecoris Aselli three times daily. My stock of kameela at the time being somewhat circumscribed, prevented me applying it to the head in this case.

Case 2.—In the month of July last, Michael R——n, a stout lad, aged about 12 years, presented himself at the Institution for Diseases of Children; he had well-marked herpes capitis about the size and shape of a halfcrown-piece over the right parietal bone. I prescribed a purgative of Calomel and Pulv. Jalap Comp., to be repeated after the lapse of three or four days, and at the same time ordered him a mixture containing small doses Iodid Potassium. The local treatment was Ungt. Sodæ Carb. (℈i. to ℥ i.) and Lotio Sulphuret Potass (℥ i. to Oi.) Under this treatment the improvement was manifest, but not so quick as I could have wished; accordingly, on the 3rd of August, I applied the kameela on moistened lint, as in the previous case, and after the third application the patient did not return; and he afterwards told me that it had completed the cure. In this case, all the merit is not due to the kameela, as the carbonate of soda and sulphuret of potash treatment had been in use some time; but the former application certainly expedited the complete removal of the eruption.

Case 3.—G. P., aged four years, a delicate girl, with glandular enlargement, was brought to the Institution, Pitt-street, Oct. 20th, on which day I applied the kameela to a circular patch of herpes on the left shoulder, which was about the size and shape of a florin, and at the same time prescribed Hydrarg c. Cretâ g. i.; Pulv. Rhei. g. iv.; and Pulv. Aromat gr. ¼, to be taken every second night.

22nd Oct.—Eruption had almost disappeared; I re-applied the kameela.

26th.—Herpes quite gone.

Case 4.—James P., aged two years, a stout healthy boy, had a circular sore of herpes circinnatus, on the top of the right shoulder, about the size of a shilling. On the 21st of October last I prescribed alterative powders of Hydrarg c. Cretâ Rhei. Pulv., and Pulv. Aromat., at bed time every second night, and applied the kameela to the eruption.

22nd Oct.—Eruption much paler in the centre, edges still red; re-applied the kameela.

26th Oct.—Mark of the eruption scarcely perceptible.

I think this powder may justly be considered a valuable addition to our local applications in herpes, and, I have no doubt, in other allied eruptions, of course coupled with alterative or tonic treatment, or both, as the case may be. As regards the anthelmintic properties of this agent, it is highly extolled by those who have given it a fair trial. The dose of the kamecla, as an anthelmintic for an adult, is from ʒ ii. to ʒ ss. of the powder, and of the alcoholic tincture ƒ ʒ j. However, I shall reserve any further remarks on the vermifuge properties of this medicine till some future occasion, when I hope to bring it under the notice of the profession. *Dublin Hospital Gazette.*

On Bloodletting in Pneumonia. By Proof Wunderlich.

In the course of five years, there have been treated at the Leipsic, Klinik, 204 cases of pneumonia, of which number 36 (17.06 per ct.) ended fatally; but if we abstract from these those cases which were brought to the hospital *in extremes*, and count only those which were actually treated there, there were then 190 cases with 11 deaths (11.57 per cent). Among the fatal cases, 3 were treated by bleeding, as were 44 of the cases that recovered, making the mortality of these so treated 6.38 per cent. These fatal cases were examples of pneumonia complicated with disease of other organs.

In 114 of the patients, loss of blood occurred during the course of the pneumonia, whether from local or general bleeding, epistaxis or menstruation; and of this number 9 (including the 3 treated by bleeding,) died, *i. e.* 7.89 per cent. In 76 cases, no loss of blood whatever occurred during the progress of the case, and of these 13 or 17.10 per cent died, not including persons brought in agony, and who had not in general been treated by bleeding. Thus it results that,—1. In cases in which there was loss of blood in general the mortality was 7.89 per cent. 2. In those in which venesection had been employed, 6.38 per cent. 3. In those in which a complete conservation of blood took place, a mortality of 17.10 per cent.

The author enters into an elaborate comparative statement of the influence which the loss of blood exerts upon the time and termination of the fever and of the commencement of the healing process. Pneumonia, he observes, possesses, in the vast majority of cases, the peculiarity of commencing with very determinate symptoms (severe chills, unequal distribution of the blood, and rapid increase of the objective temperature of the trunk), which are immediately followed by acute continued fever (increase of temperature, rapidity of pulse, etc). In favorable cases, there

is this further peculiarity, that at about the period of the completion of the exudative process (cessation of increased dulness on percussion, and of the bloody sputa) the febrile symptoms rapidly disappear, the delirium alone continuing awhile if it has been very violent. In this respect, pneumonia approaches the eruptive fevers, and forms a contrast to other inflammatory diseases, as abdominial typhus, pleurisy, peritonitis, meningitis, bronchitis, etc. Wishing to avoid the ambiguity which would ensue upon the adoption of the word *crisis*, the author designates this passage of the economy from a feverish to a feverless state, *defervescence*. It is no accidental occurrence, but a process which is sometimes rapid, sometimes slow, and may be complete or incomplete, protracted, uninterrupted, or remittent. A rapid defervescence is decisive for the quick convalescence of the patient; but, while cases in which it is remittent are rare, yet, when it is protracted, uninterrupted, it is of bad augury for the patient, even when the disease is slight.

As a standard for judging the effects of therapeutical agents upon the period of defervescence, the professor first selects 32 cases treated by expectation, and in which the exact time of its commencement was noted. Taking 10 of severe and 10 of the medium cases, the defervescence commenced at the seventh or eighth day; but taking the entire number, in adding 12 slight cases, it occurred at the sixth or seventh day. Judging from 9 cases which came under his notice (2 of menstruation and 7 of epistaxis), spontaneous bleeding proved rather favorable, as the improvement dated from the appearance of the bleeding.

Local without general bleeding was followed by recovery in 36 cases. In 26 it was employed either alone or in conjunction with medicines, such as digitalis, or ipecacuanha, which exert no appreciable effect in expediting the period of defervescence, and in 10 it was combined with tartar-emetic, which does exert an effect of this kind. Of the first series, rapid defervescence took place in 7 slight and medium cases in from the third to the sixth day, and in 19 bad cases it varied from the second to the ninth day. In the 10 cases of the second series, it took place from the third to the seventh day.

In 39 cases, in which the commencement of the disease could be accurately ascertained, venesection was employed. First, in 18 of these it was employed on the first or second day. In 10 of these there was immediate arrest of the process; in 2, immediate arrest, with a somewhat slower continuance of improvement; in 5, a considerable diminution of fever, with a later but less considerable return, the fever ceasing in 4 cases on the sixth, and in 1 on the seventh day. In 1, no effect was produced, improvement following only after local bleeding. Secondly, in 21 the

venesection was performed from the third to the fifth day; but in none of these cases was bleeding the only means employed. The results obtained even here contrasted very favorably with those obtained by expectative treatment. It was found that the conjunction of tartar-emetic hastened the period of defervescence somewhat, that of local bleeding was scarcely of any effect, while the addition of digitalis was of no effect whatever.—*Med. Times and Gaz.*, June 5, 1857, from *Virchow's Archiv.*, 1856.

A Case of Dislocation of the Femur into the Sacro-Ischiatic Notch· Reduced by Manipulation. By G. R. Henry, M.D., of Burlington, Iowa.

On the 24th inst., I was requested by Dr. W. W. Nassau to visit with him a man who had been thrown from a rail-car on our Western road.

I found a very robust, muscular man, about 40 years old, with his right leg very much everted and shortened two inches and a half, presenting the indications of a fracture of the neck. From the absence of crepitus, and the obstinate persistence of shortening, we concluded that there was no fracture; and from our inability to feel the head of the bone and the position of the trochanter, we diagnosed a dislocation into the sacro-ischiatic notch.

We determined to attempt the reduction without applying the pulleys. After administering chloroform, we flexed the knee upon the thigh, and gradually elevated the latter upon the body, then bent it downwards and towards the other side, keeping up manipulations upon the trochanter. During its descent, the head of the bone was felt, and heard to move from the notch and take its position upon the dorsum ilii. After repeating this proceeding two or three times, it slipped into the acetabulum. We were much aided and assisted by Drs. Peet and McCann.

The ease with which the reduction was accomplished, the slight laceration of the muscles, the comfortable condition of the patient afterwards, in connection with the rapid recovery from all ill effects of the injury, satisfy me that *where it is practicable* this mode of procedure is far preferable to the one in common practice.

Observations on Vaccination.—M. Blache communicated to the Paris Hospitals Medical Society the particulars of a recent curious instance of prolonged incubation of vaccinia. A young lady was vaccinated without any result, and she crossed over to England. More than a year

afterwards the vaccine eruption went through all its stages in a completely normal manner, under the supervision of a distinguished English practitioner. M. Blache knows of cases of six weeks' incubation, but never heard of one like the present. M. Legroux took the occasion of mentioning the results of his vaccinations at the Hôtel-Dieu. It having been observed that women frequently returned to the Hospital soon after confinement, their infants having contracted the smallpox, he has been of late in the habit of vaccinating infants born there when only two or three days old. Enormous pustules with deep ulcerations and delayed cicatrization have been the results. Successful vaccination was, however, performed with these pustules taken on the 15th day. M. Blache observed that he has frequently vaccinated healthy new-born infants in four places without any ill effect; but on vaccinating unhealthy infants at the Cochin Hospital he has met with the same ecthymatous pustules and ulcers, running together, as described by M. Legroux. M. Hervez de Chegoin believed the conditions observed by M. Legroux depended more upon the vaccine lympth than the age of the infants. Very similar results followed the employment of the virus discovered among the cows at Passy. M. Gilette had met with a case in which large ulcers menaced the life of a child that had been vaccinated at the Maternité very soon after its birth. M. Harvieux believed that the accidents noted by M. Legroux may be due to the development of the lymphatic system in the infant. The frequency of angioleucitis, adenitis, sometimes going on to axillary abscess, complicating vaccinations, supports this view. M. Legendre observed that adenitis is no complication, but a constant phenomenon, of vaccination.—*Med. Times and Gaz.*, October 10, from *Union Médicale*, No. 5.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

UNIVERSITY OF LAVAL.

The Hon. P. J. O. Chauveau is at present contributing a very interesting series of articles to the *Journal of Education*, on the history, &c., of the different educational institutions of Lower Canada. He has, with his usual kindness, allowed us the use of the woodcut representing the building appropriated to the School of Medicine in connection with

Laval University, Quebec. This highly respectable institution, as our readers are aware, is purely French-Canadian, and offers to the student in Medicine of that origin, who may be desirous of attending lectures delivered in his native language, the opportunity of obtaining a thorough knowledge of the science of Medicine. It was established by Royal Charter in the year 1852, and has the power of granting degrees in Medicine.

The Seminary and the Rector of the University lost no time in carrying the Charter into effect. The Faculty of Medicine was the first organized, and this was done by the merging into the University of the Quebec School of Medicine, which used to receive a legislative grant of £250, and ceased to exist a short time after the inauguration of the University, most of its professors having accepted professorships in the new institution. Dr. Jean Blanchet, a member of the Royal College of Surgeons of England, one of the oldest physicians in Quebec, enjoying an immense practice and a reputation of the highest order, was appointed Dean of the Faculty and Professor of the Institutes of Medicine and of Physiology. He delivered an inaugural lecture, which has been printed, and is considered a remarkable synopsis of the various branches of study of the medical profession. Dr. Blanchet had been a member of Parliament for Lower Canada under the old Constitution, and after having retired from public life for many years he was again elected for the City of Quebec in 1854. His health being considerably impaired in 1856, he resigned his professorship, and had the title of honorary professor conferred on him. His chair has not yet been refilled, but a lecturer has been appointed in his place. He died on the 22nd of April last, and an interesting biography of that able and charitable physician, written by Dr. J. C. Taché, is to be found, together with his portrait, in the 6th No. of *Le Journal de l'Instruction Publique* and in the *Medical Chronicle*.

The other four professors appointed to that faculty were Dr. Frémont, the present Dean, who is the professor of Surgery; Dr. Nault, professor of Materia Medica and Secretary of the Faculty; and Dr. Landry, professor of Anatomy, who has visited Europe and collected a museum of anatomy and a library for the University. To these are now to be added Dr. Jackson, appointed in 1854, professor of Midwifery; Dr Lemieux, lecturer on the Institutes of Medicine and Physiology; and Mr. L. M. Larue, lecturer on Medical Jurisprudence and Hygiene. The latter is a young gentleman recently admitted to the medical profession, and who has studied in the Universities of Paris and of Louvain for the express purpose of filling the chair to which he will soon be appointed.

The building of the School of Medicine was also the first begun and the first completed. It is situated in St. George street, and has another entrance on University street, which is a kind of lane on the Seminary ground. On one side of the street is the school of Medicine, and on the other the University, and the Boarding, house or *Pensionnat*.

The School of Medicine is a building 70 feet in front by 60 in depth and 50 feet high. It is four stories high on St. George street and three on University street. It contains dissection, rooms, an amphitheatre, a library, two museums (one of pathological and the other of normal anatomy), a collection of surgical instruments, a vast laboratory, and a depository of medical preparations, and large and well, laid, out class rooms. The library contains about 3000 volumes, and the collections are of the most costly description.—*Journal of Education, September.*

A STUDENT'S LETTERS.

No. III.

Perhaps it would not be uninteresting to say a few words relating to *clinical teaching* in Edinburgh in the Royal Infirmary. There are 5 teachers of clinical medicine and two of clinical surgery; Drs. Bennett and Laycock, and Mr. Syme for the university; and Drs. W. T. Gairdner, Begbie, and Keiller, and Mr. Spence, for the College of Surgeons. (Dr. Christison has resigned his clinical chair.)

I must say that for a school of medicine, Edinburgh is, as far as I am capable of judging, very much superior to that of any other city that I have been in; and as a surgical school is little, if at all deficient. It may not be inappropriate to state here in a few words how clinical teaching is conducted.

I shall first describe Dr. Bennett's method. He has three clinical clerks, whose duty it is to take notes of all the cases in his wards which are of any importance, and upon which he lectures. It is likewise their duty to examine the urine of each patient every day when it is required, and to prepare any particular specimen, whether microscopical or otherwise, to be examined by the other students. They also examine sputa or any morbid substance which it may be requisite to know the composition of. This entails a large amount of time, and, as it demands no inconsiderable knowledge on the part of a clinical clerk, they are selected from competent members of the class. (I may here state that all the wards are furnished with an Oberhauser microscope and other requisites, and that the manipulations are performed in a small room adjoining the

ward.) Dr. Bennett examines the cases before the class, points out all the symptoms of disease, and calls out the students singly to examine for themselves.

When a new case comes in he calls on a student to examine it; and when the opinion is given, he either confirms what has been said, or points out where and how the error has been made. He always uses a hammer of Professor Winterich's model as a percussor, and the ivory pleximeter of M. Piorry slightly modified. By this means the different sounds elicited are easily distinguished by the students when at a distance from the bedside; and this is a matter of some importance when the class is so large that many of its members cannot get very near. He lectures every Tuesday and Friday at 12 noon; and has a class once a week, in which the junior members are instructed in Physical Diagnosis, to enable them to distinguish between normal and morbid phenomena. He is very particular in requiring the students, when examining a case, to ask the questions in a certain methodical manner, and to follow each out in such a way that he can come to a direct knowledge of where the lesion exists.

The first question which is always to be asked is, "Where do you feel pain?" The place is pointed out by the patient; and after this has been followed up by an examination, the second is, "How long have you been ill?" and thus it is carried out until the conclusion has been arrived at. (The ordinary students are allowed to take notes of any case they *choose*, which he corrects.) I shall now pass on to the clinical teachers of the College of Surgeons.

The work with them is divided into three parts. Dr. Gairdner lectures on the senior department every Friday at 1 p.m., and Dr. Begbie on the junior every Tuesday, except the last of each month, on which day Dr. Keiller gives a lecture on those diseases of women which may exist in his ward at the time.

Dr. Begbie has a class for junior students every Thursday at 1 p.m., to whom he demonstrates practically the various methods of carrying out a physical examination, then all the normal phenomena of the various organs, as mapping out the cardiac, splenic and hepatic, dullness, the normal sounds of the heart and lungs, &c. He will then demonstrate the different morbid sounds and appearances on the patients at that time in the wards. Which, after being finished, he will point out the characteristics of healthy urine, and finally the tests, chemical and microscopical, for detecting abnormities in that fluid. He will also give some attention to the discrimination of the sputa and morbid products. Dr. Keiller points out the manner of conducting the examinations of female diseases on the cases in the wards, with the uterine speculum and

sound, and likewise the operations for rupture of the perineum, and like injuries.

Dr. Gairdner has a class every Monday at 1 p.m., for the purpose of instructing the senior students in making themselves masters of their profession; such as the diagnosis between different diseases, and the manner of coming to a right conclusion regarding them; the different phenomena which the same disease takes on at different times; and matters of like import.

Dr. Gairdner's method of clinical instruction is similar in many respects to Dr. Bennett's, but differs slightly in others.

All those students who wish to take notes of cases, are requested to give in their cards; and to these, the cases as they come in, are given in turn.

In taking notes of cases, he wishes the student to mention only those facts bearing directly on the disease, and not to attempt any lengthened history unless he has such an amount of time as will allow him to do it perfectly. He wishes also that the student shall make a marked distinction of those symptoms which he clearly makes out himself, from those given by the patient, which must be received or not according as they are found to coincide with the disease in question.

When interrogating a patient, allow him to tell his own story first without interruption, and to point out the place where the pain is located. When a student has been given charge of a case, he is required to make an examination privately at any hour he finds it convenient, and to put down his notes on paper, which are read before the class at the next visit.

When finished, he examines the patient himself, and confirms the statements made, or shows how and where the error has been made. He then makes remarks on the notes whether anything useless has been taken down, or if any of the principal symptoms are lost sight of or are not sufficiently dwelt on, which thus serves as instruction for all. After his examination, you take down his remarks on the different signs, which are repeated every day.

By this method a student is better enabled to satisfy his mind concerning a case when he has leisure, and is not so likely to be unnerved as when it is done in public. Dr. Gairdner intends, after Christmas vacation, to select clinical clerks, by competition from those who are desirous of having the office, and to whom the examination of the urine, &c., and preparing notes on cases for his lectures, are committed. He has a junior class, who do not take notes of separate cases, but write down his remarks on the separate diseases. Clinical Surgery by Mr.

Spence and Mr. Syme, is taught similarly by each. The lectures are twice a week, and the subject of each description is brought into the room, and any operation required is performed, and the steps explained. This is independent of the operations performed in the general Operating Theatre.

Dr. Haldane, the Pathologist to the Infirmary, explains the morbid anatomy of the parts under consideration, and sends specimens around to be examined by the students (who are not allowed to be in the area, except the one who has taken notes of the case during life).

There are two eye-wards connected with theI nfirmary, which Mr. Walker attends daily. The daily visit at the Infirmary commences at 12 noon.

I shall in the next give a few words regarding the colleges here.

A. R.

Edinburgh, Nov. 25, 1857.

SECRETARY'S OFFICE,
Toronto, November 28, 1857.

MEDICAL APPOINTMENTS.—His Excellency the Governor-General has been pleased to make the following appointments, viz. :—

John Nation, M.D., and John Gardiner Bolster, Esquires, to be Associate Coroners for the County of Ontario.

ELEVENTH BATTALION, MONTREAL.

To be Surgeon :—Arthur W. Delisle, Esquire, M.D., vice B. Delisle left limits.

To be Assistant Surgeon :—Patrick O'Leary, Gentleman, vice Boudria, left limits.

Toronto, Dec. 5, 1857.

His Excellency the Governor-General has been pleased to make the following appointments, viz. :—

Timothy Theobald Coleman, Esquire, M.D., to be an Associate Coroner for the United Counties of Huron and Bruce.

John Doherty, Esquire, to be an Associate Coroner for the United Counties of York and Peel.

Peter Stuart, Esquire, to be an Associate Coroner for the United Counties of Stormont, Dundas, and Glengarry.

John Stewart, Esquire, Surgeon, to be a Member of the Board of Governors of the Kingston Hospital, in the room of the Hon. John Macaulay, deceased.

HOSPITAL RETURNS.

Monthly Return of Sick in the Marine and Emigrant Hospital, Quebec, from the 29th October to the 2nd December, 1857.

	Men.	Women.	Children.	Total.
Remained,	51	9	1	61
Since admitted,	48	10	1	59
	99	19	2	120
Discharged,	70	5	1	76
Died,	4	0	0	4
Remaining,	25	14	1	40

Diseases.

Fever,	2	Contusions,	2
Inflammation of lungs,	5	Catarrhus,	9
Inflammation of bowels,	1	Pregnancy,	4
Rheumatism,	8	Hæmorrhoides,	1
Dysentery,	1	Erysipelas,	1
Diseases of skin,	1	Feb. Intermittens,	2
Syphilis,	6	Delir. Tremens,	1
Fractures,	3	Debilitas,	1
Abscess,	2	Epilepsia,	1
Ulcers,	1	Ophthalmia,	1
Wounds,	2	Destitution,	4

C. E. LEMIEUX,
House-Surgeon.

MEDICAL NEWS.

Two other American physicians, Drs. J. Adams Allen, of Michigan, and Martyn Paine, of New York, claim priority in the discovery which Marshall Hall so gracefully yielded to Dr. Campbell, of Augusta, Georgia. "Why do not," says the New Orleans Med. News," all the claimants come in at once, and let Dr. Campbell kill them all with one stone?"—One suicide takes place annually in Moscow out of 55,108 inhabitants; Sardinia, one in 50,318; Belgium, one in 27,468; United States, one in 23,263; England, one in 15,300; France, one in 13,461, Prussia, one in 8,081; Saxony, one in 5,664; New York, one in 8,838; London, one in 5,000; Paris, one in 2,175.—M. Perret, the editor of the well-known medical journal, the *Moniteur des Hopitaux*, has been sentenced to three months' imprisonment for speaking (not in his journal, but by word of mouth) disrespectfully of the Emperor.—To the practice of medicine in Beloochistan there are only two slight drawbacks. When the physician gives a dose, he is expected to take a similar one himself, as a guarantee of his good faith. Should the patient die under his hands, the relatives (though by no means

bound to exercise it in all circumstances) have the right of putting him to death, unless a special agreement has been made freeing him from all responsibility as to the consequences; while he, should they decide on immolating him, has no reasonable ground for complaint, but is expected to submit to his fate like a man and a hakim. In other respects the amateur will find an easy field.—The Sydenham Society is defunct. At a recent meeting a resolution was carried by a considerable majority for its dissolution.—A most important addition to the pay of Army Assistant-Surgeons has been agreed to by the Government, and henceforth that class of officers will receive a *minimum* of 10s. a-day.—The election of Mr. West to the Queen's Hospital, Birmingham, has been declared void on the ground of canvassing, this not being allowed by the bye-laws of the Hospital, and Mr. Gamgee has been elected.—A literary war is springing up between Dr. Taylor and Dr. Letheby respecting the detection or non-detection of strychnia in Cook's case. It appears that in an article published in Guy's Hospital Reports "on the detection of absorbed strychnia and other poisons," Dr. Taylor used some objectionable language, and Dr. Letheby, keenly alive to his reputation, takes up the pen in self-defence. He affirms that strychnia is eminently indestructible, and if in the body ought to be found; he insinuates, pretty broadly too, that as Dr. Taylor did not find it in Cook's body he did not know how; or if he did, it was not there.—An announcement has recently been made that Jenner's statue is really to be set up in Trafalgar Square, near the Union Club House, in the early part of next year.—M. Migette, a farmer in Algeria, and M. Algnie, military surgeon, have just respectively obtained the premium of £10 for having made known to the authorities two cases of cow-pox upon cattle belonging to M. Migette.—Wadd, in his Nugae Canorae has the following upon some surgeon who was upwards of twenty years assistant-surgeon to an hospital:—

> How hard was poor Sir —'s lot
> Among chirurgic sages!
> He all the work and honor got,
> While they got all the wages!

Wadd adds: "We have here a singular instance of what trifling incidents make or mar a man's success in life. The gentleman alluded to lost his election as an assistant-surgeon to an hospital only by a few votes, *about equal in number to a dinner party* given by an active friend of his opponent.

THE

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ORIGINAL COMMUNICATIONS

ART. XXVI.—*Therapeutical Contributions.* By WILLIAM WRIGHT, M.D., L.R.C.S.E., Professor of Materia Medica, McGill College. Physician to the Montreal General Hospital, &c.

ADIPOSE FOOD.*

Adipose food comprehends both fats and oils of the order called saponifiable or those which are convertible into soaps. The non-saponifiable, such as cholesterine, are excluded because they are not used dietetically. As the observations to be made apply equally to fats and oils, to save words I shall only employ the first name, so that when used it is meant to denote both substances.

COMPOSITION.—Fats are *bona fide* salts, having for their basis a peculiar substance called the oxid of lipyl. By boiling with the caustic alkalies, alkaline earths, or metallic oxids, fats are resolved into certain proximate principles, as stearin, margarin and olein, and these are composed of individual acids, stearic, oleic, and margaric, in combination with a sweet substance styled glycerin. From this latter circumstance glycerin was at one time called the basis of fats, but this opinion is proved to be wrong as by association with fatty acids, i. e., by synthesis, no fat can be made from it. Glycerin is probably a compound substance, and may be regarded as a sesquihydrate of the oxid of lipyl, that is consisting of three equivalents of water, and a double atom of oxid of lipyl. Lipyl is an hypothetical radical, and has the same composition that was formerly ascribed to glycerin. It forms compounds like the ethyle series.

* From notes of lectures delivered to the Materia Medica Class, McGill College, during the session 1856–57.

"*Glycerin* is a faintly yellow liquid, with an agreeable sweet taste,—it attracts water from the air, dissolves readily in water and alcohol, but not in ether, and is neutral. It dissolves alkalies and several of the metallic oxids, as oxid of lead in large quantity. When rapidly heated it is entirely decomposed. If its watery solution be exposed to evaporation, decomposition immediately ensues. When heated in the air it becomes inflammable and burns with a blue flame. By concentrated nitric acid it is converted into carbonic acid, oxalic acid and water; with hydrochloric acid and peroxid of manganese it originates formic acid. The best test for it is that when heated with anhydrous phosphoric acid in a tube from which fresh air is excluded, it yields acrolein," which is known by having a peculiar and a very disagreeable odor, not unlike that developed by the wick of an expiring oil lamp.

"*Stearin* or stearate of the oxid of lipyl occurs as a pure white substance; it separates on cooling from its alcoholic solution in snow white glistening scales, which under the microscope appear chiefly as quadrangular tablets, sometimes as short rhombic prisms."

"*Margarin* is a white solid. It crystallizes from alcohol as a flocculent white powder, which under the microscope appears in the form of very delicate and often curved needles, arranged in rays or in whorls."

"*Olein*. This is a colorless oil which solidifies at a low temperature, it turns rancid on exposure to the air. It is never obtained entirely free from stearin or margarin."

Digestion.—It is conceded by every observer that fats are digested in the duodenum. They are not normally acted upon in the stomach, so that after remaining for a time in this organ they pass unaltered into the duodenum. The only exceptions are that when adipose tissue is taken into the stomach, the areolar membrane connecting the vesicles as well as the simple membrane which encloses the vesicles are dissolved by the animal heat and gastric juice, and the fat is liberated so as to become diffused in a fluid form; the membranes thus fused are, however, albuminous textures, so that probably this is not truly an exception, for the fat is not acted upon till after it has got clear of the pylorus into the duodenum. The next exception is seen under certain disordered states of the stomach, there being then a great proneness in the fats to evolve fatty acids while in the stomach, such as occur during ordinary rancidity. These acids are exceedingly acrid and irritating. Thus mutton fat develops hircic acid; train oil, phocenic acid; and butter, no less than three, butyric, capric, and caproic acids. In healthy digestion the presence of bile is essentially necessary to ensure the assimilation of fat. Bile is necessary chiefly to promote the absorption of the oil globules through the intestinal

villi—because oil cannot unaided penetrate an animal membrance such as that lining the duodenum without considerable pressure, while it may be forced through with comparative facility when the membrane is saturated with a fluid which adheres to or has an affinity for oil such as bile. The required pressure is exercised by the organic muscles of the villi in the intestine, and the absorption is performed by the lacteals principally, though partly also by the intestinal capillaries—the latter fact is demonstrated by the discovery of fat in the portal vein. The lacteals are said to be exclusively operative in absorbing fatty matters, i.e., their exclusive use is the absorption of fat. It has been supposed that fat is saponified in the duodenum; by forming an emulsion according to some with the bile, according to others with the pancreatic juice; but this is wrong, for the saponaceous particles of such a compound penetrate but very imperfectly, or scarcely at all, through a moist membrane. The truth seems to be that fat is reduced to an emulsion, but the latter is entirely of a different nature to that imputed—it being solely an admixture of oil and water, without any incorporation of alkali; in its establishment the intervention of the alkali is necessary, but unlike the making of soaps no alkali is retained in constitution. The entire action consists in the fat being diffused in minutest particles through the watery fluid, and it is accomplished by the bile in association with the pancreatic juice, and with the co-operation of the intestinal movements. This intimate admixture of oil and water takes place at the very commencement points of the lacteals. The study of the morphologico-objective facts confirm these views that no new adipose compound is formed, for fat may be identified by its globules in all the stages of absorption—when spread out over the intestinal membrane—when adhering externally to the epithelia of the duodenal mucous surface—when within the epithelia, which they distort and distend by their intromission—when in the subjacent vesicles or cellular bodies that contribute to cap the villi—when inside the true parenchyma of the villi,—and lastly, when within the canals of the branching lacteals.

Digestibility.—Popularly fats are ranked among the most indigestible matters. Physicians have accordingly always exhibited an extraordinary aversion to their use; this is the more remarkable as it is a matter of daily experience that many fats, as for instance, the fashionable though rancid cod liver oil, are very easily digested. Although they undergo no essential change in the stomach, nevertheless, when taken in large quantities, either alone or with other food, they generally remain for a long time in this organ. Beaumont found mutton suet in the stomach of Alexis St. Martin 5½ hours after its introduction. By its presence in the

stomach fat often exerts an impeding action on the digestion of other substances in that viscus—owing to its liquifying in consequence of the high temperature to which it is subjected, then spreading over the individual parts of food, encasing them and precluding the action of the digestive juice. Sometimes again it sickens by causing a large regurgitation of bile, more than it can counteract, so that the remainder acts injuriously: while, at other times again, it disagrees by becoming decomposed during long retention and forming volatile acids which exert a very deleterious agency upon digestion being very acrid and irritating. Accordingly those fats, from which can be made most volatile acids, are more liable than others to disagree, and hence the use of mutton fat, butter and fish oils are especially objectionable to an invalid, with whom their employment is liable to create cardialgia, eructations, nausea and vomiting. You can now understand how large quantities of adipose food are prejudicial to gastric digestion, though strictly speaking there is no digestion of fat in the stomach. As fat is not, as I have just said, digested in the stomach, we can form no idea of the *time* required for its digestion by an examination of the contents of that organ; nor can we decide by an examination of the intestinal matters as the period of its descent into the duodenum is not constant. After it has entered the duodenum it is probably absorbed or disposed of rapidly, for says Lehmann "in the course of from half an hour or an hour after fatty food or oil has been taken we find in the upper part of the jejunum in dogs, cats and rabbits, not merely the epithelium, filled with fat globules, but also the lacteals with glistening white chyle;" and therefore he says we must regard fat as very easy of digestion. When not mixed with too large a quantity of food it essentially promotes the digestion both of albuminous and amylaceous substances; it is easy to ascertain by means of artificial openings in the stomach that flesh for instance deprived of fat remains longer in the stomach, and therefore requires a longer period for its metamorphosis than the same substance when mixed or impregnated with a little fat. The digestibility of adipose food is greatly lessened by its exposure to air as it becomes rancid and in the condition of acidity before described. Heat has a somewhat similar influence, so that culinary operations in which oil or fat is subjected to a high temperature are objectionable for the preparation of these foods for persons with weak stomachs. On this account dyspeptics should be interdicted from employing dishes prepared by frying, as in this operation the heat is usually applied by the intermedium of boiling oil or fat. In nine-tenths of the dishes which are obnoxious to dyspeptics, one or other will be found an active constituent; hence both should be carefully prohibited to persons of this class unless

they have been shewn by former experience not to disagree, and they should be shunned not only in their obvious forms as oils, &c., but in their more masked forms: the latter are especially insidious and likely to be overlooked, but their great danger demands their rigid discovery and strict prohibition. As examples may be cited, yolk of eggs, livers and brains of animals, milk, and particularly cream, rich cheese,—frys, such as melted butter, buttered toast, butter cakes, pastry, marrow and suet puddings—various fishes as salmon, herrings, sprats, &c.,—oily seeds, as walnuts, butternuts, cocoa nuts, &c.; chocolate also the preparation of an oily seed; hashes, stews, and broths, indeed no broth should be used by dyspeptics that is not skimmed.

Nutrient Value.—To the human palate adipose food is at first probably distasteful, but a taste for it can be more readily acquired than might at first be supposed: patients who have been treated with cod liver oil, have in a short time begun to like it, and to prefer that which is most strong and rancid. Large quantities of fat produce highly stimulating effects on the constitution, enabling the body to resist the influence of excessive cold to an extraordinary degree, which is no doubt the reason of its being eaten so inordinately by the inhabitants of very high latitudes Some of the naval officers who have commanded expeditions to the polar regions, think, with apparent reason, that their crews would have suffered much less from the cold, if they could have lived more after the manner of the natives, and taken more greasy substances as food. An oleaginous diet is not prized by the inhabitants of cold countries exclusively, for in South Africa the mass of fat forming the tail of the sheep is held in great estimation by the Hottentots. Still, however, the quantity of fatty aliment consumed by the inhabitants of hot countries is very inconsiderable, compared with that eaten by people residing in very cold regions,—its excitant influence rendering it unfit as a principal article of food in warm climates. The preceding remarks should properly be restricted to animal oils. For vegetable oils are consumed in large quantities by the natives of temperate and tropical regions of the globe. Vegetable oils, however, have an opposite effect upon the body to that produced by animal adipose substances; for they are cooling instead of stimulating, and favor the action of the intestinal tube, which is always of great importance to the health. and particularly so when the food consists chiefly of vegetable matters. Nothing more readily removes the inconveniences induced by sluggish bowels than a liberal use of vegetable oils. Generally speaking a taste is readily acquired for the latter, yet there are many persons who have almost as great an aversion to olive oil as they have to train oil, merely from prejudice.

Uses.—1. To replenish the adipose tissue. This membrane is distinct from the areolar with which for a long time it was confounded. Hunter denied its individuality, because all the fat may be dissolved out of its areolar meshes by ether, leaving them unaltered. The fact of its distinctness from the areolar membrane has been abundantly substantiated in more recent times by the microscope. Adipose tissue is so universal as to be present in every part of the body except the teeth. As was before mentioned, it consists of cells;—when fat is taken as food it is secerned in part into these cells, and thus fulfils its office of replenishing the tissue. It is abstracted from the blood capillaries by the cellwalls, and discharged into their cavities; in passing to these receptacles it is undoubtedly modified, since animals secrete fats quite different from those which enter into the composition of their aliment; thus human fat contains little or no stearine, although this is largely consumed by us as food. This circumstance of difference in composition between fat eaten and fat secreted, countenances the opinion of Liebig, that the adipose tissue is replenished not by fat, but by the transformation into fat of various non-fatty substances, starch, gum, sugar, &c. This Liebig believes to be the rule, but admits as an exception that when surplus quantities of fat are eaten, the excess may be simply appropriated to replenish the adipose tissue. The tissue thus produced performs a number of important uses of a physical kind as giving rotundity to the frame, serving as an elastic cushion to lessen the effects of shocks, and to diffuse uniformly external pressure; filling up interstices that otherwise would exist between muscles, bones, vessels and nerves: facilitating the mobility of organs; protecting the body from the pernicious effects of excessive heat or cold, and of rapid changes of temperature; affording buoyancy to parts of greater specific gravity; rendering other textures supple and lessening the brittleness of parts naturally fragile. Under certain favorable conditions the development of fat proceeds to an extraordinary degree at the period of manhood. Liebig has said its production is a consequence of a deficient supply of oxygen, for oxygen is absolutely indispensable according to him for its consumption, or rather the consumption of the carbon and hydrogen it contains, this scarcity may result from deficient respiration entailed by confinement, want of exercise, indolence, &c., or it may ensue from a natural supply of oxygen, and an excessive amount of fat, i. e., too much fat for the oxygen,—the relative balance being equally disturbed in either case. These rules do not however always apply, and occasionally without being able to assign any satisfactory reason for the occurrence we observe persons fall into extraordinary corpulence, or obesity, or polysarcia, as the state of gross fatness is variously styled. An Italian Priest

who rejoiced in the name of Paolo Moccia is reported to have weighed less by 30lbs. than his own bulk of water, and therefore could not sink in that fluid, he was water-proof, as light as a cork and could not drown. M. Blainville is reported to have remarked, after a tour across the channel: "We have seen many individuals of the English nation whom embonpoint had rendered almost monstrous; and I remember, among others, a man exhibited in the Palais Royal, who weighed 500lbs.; he was literally as broad as he was long" From the correspondence of weight, the fat man here alluded to must have been Mr. Bright, a tallow chandler and grocer of Malden in Essex, who died in the 29th year of his age. Seven persons of the common size were with ease enclosed in his waistcoat, and a stocking which when sent home to him was found too little, was large enough to hold a child four years old. Mr. Bright was esteemed an honest tradesman and a facetious companion. He was comely in his person, and affable in his manners. Heavy though he was, he fell short of the weight of Daniel Lambert who exceeded him by 10 stone, and died after living through 40 years, leaving behind him the posthumous fame of being the most ponderous or colossal man tha thas been ever authentically known. In him mice might possibly have nested, if it be true that a Bishop of Mentz, or as Hudibras has it,—

> "A Saxon Duke did grow so fat,
> That mice (as histories relate)
> Ate grots and labyrinths, to dwell in
> His postique parts, without his feeling."

Polysarcia may be repressed and lessened by systematic exercises—living on sixpence a day and earning it; by sleeping little, and only indulging in food of sparing quantity and a dry kind; by fretfulness of temper, or real anxiety of mind. These will prevent any one from getting fat, and make the fattest man thin. If we are to trust Shakspeare, the great Julius Cæsar had a keen perception of the causes and indices of meagreness. He says to Antonius:

> "Let me have men about me that are fat;
> Sleek-headed men, and such as sleep o' nights:
> Yond' Cassius has a lean and hungry look:
> He thinks too much: such men are dangerous."

Antony, in reply, beseeches Cæsar to fear him not, as there is no reason, and he is a noble Roman; but Cæsar again returns to the charge:

> "Would that he were fatter,"

and so enters on his monologue. Examples of extreme attenuation are now and then observed. An American named Calvin Edson, shewn

a few years ago, was wonderfully emaciated. He weighed but 58 lbs. A Frenchman named Seurat is said to have been considerably lighter than even this. He was exhibited at one time under the attractive soubriquet of the living skeleton. I have not succeeded in ascertaining his actual weight, but he is said to be as extreme an illustration of leanness as can be imagined. He lived upon ℥ iij. of nourishment daily, comprising a little meat and bread. Neither the American nor Frenchman had any disease. The Frenchman was 30 years old, and had wasted from infancy. The American was 40 years of age, and had been getting sparse for 16 years.

Fat is deposited in some organs in preference to others, especially the liver; a circumstance that has led to the enunciation of a theory that the lungs and liver were compensatory organs, so that when one was incompetent to act, the other discharged its functions; or, when an extra amount of work was imposed on one organ, it devolved upon the other. When, therefore, more adipose food is taken (according to the disciples of Liebig) than can be burned by the lungs, the superfluous quantity is received by the liver and becomes incorporated with its substance. This is well illustrated in the formation of the patés de foies grases, which are so highly esteemed by gourmands. Geese are confined in coops, just large enough to hold them, in a room which is always kept at a high temperature, while the unfortunate bird is kept close to a fire, and constantly crammed with food. In a short time the required change ensues, and the liver is found enormously surcharged with oil. In parts of France and Germany this is a very common practice. In Italy it is the custom to treat a peculiar swallow—called, I believe, the Orlin—in the same way. After a short, but steady persistence, in a similar mode of treatment, they become actually little balls of fat, and are then judged ready for killing. The cook prepares them into a dish, which is esteemed among the raciest morsels by epicureans. This fatty condition of the liver is often seen as a result of disease; indeed it is a common occurrence in Phthisis, in which affection it also proceeds occasionally to a great extremity. In one instance, alluded to by an eminent pathologist, it extended below the crista ilii, and almost filled the entire abdomen; so that, to ascertain its measurement, the yard-stick would have been required instead of the inch rule. Applying the same explanation to this diseased condition as the artificial one, the lesion would be accounted for by the damaged and ulcerated state of the lungs, being unable to excrete or consume the fat or carbonaceous matters supplied to them. The quantity supplied them might be normal, but their working surface being lessened, and being incapable of over-action, the liver is obliged

to do their duty, and in recompense becomes oppressed with fat. Between the liver and oleaginous aliment are many important relations which you require to bear in mind. This food is absorbable by the agency of the bile; the admixture with water makes an emulsory compound, while at the same time the bile is rendered miscible with the other chylous particles, and they fitted for similation. Consequently, in the hypersecretion of this fluid a natural remedy suggested is the use of oleaginous food. When, therefore, regurgitation of bile takes place into the stomach the patient will find his nausea, headache, and other annoyances, relieved by eating fat pork or bacon. The truth of the reason, however, has been questioned, but not the fact itself; because the same relief has not been experienced in such cases by the use of other fats; so that there must have been something peculiar in the bacon, probably in the process of its curing, which rendered it salutary. In Cholera Infantum, again, when every other thing is rejected from the stomach, this food, rare broiled and given in small quantities at a time, has been retained, and to the manifest advantage of the little sufferer. Again, it is a popular notion,—and by no means an erroneous one, although it is now and then pushed too far,—that fatty food produces bile in the stomach. Dr. Beaumont verified this, with an immense number of other facts, by actual observation. Diabetes, which was spoken of in the last lecture as having a dependance on the hepatic functions, has been assumed as an indication for the use of oleaginous aliment; indeed it agrees so remarkably well with patients in this disease that it has been proposed as a remedy. When freely taken it causes a flow of saliva, and thus diminishes the urgent thirst; and usually it gives a sensation of satisfaction and support to the stomach, which other alimentary substances do not. Occasionally, however, it disagrees. If useful, butter would, perhaps, be its most agreeable form. And lastly, gall-stones are known to consist of a fatty matter called cholesterine, and have been accounted for upon the theory of a mal-assimilation of the oleaginous principle.

2. Adipose food replenishes the medullary membrane of bones with medulla or marrow. Marrow is perfectly identical with the ordinary fat of adipose tissue, excepting that it contains somewhat more olein. It not only remains undiminished, but is even not unfrequently augmented largely in various diseases of the bones; as, for example, osteo-malacia.

3. It is indispensable to the sustenance and reparation of the nervous system, as fat under the form of cholesterine enters largely into the composition of its structure. This statement I find rather discountenanced by Lehmann, who says, notwithstanding the similarity

which many of the physical properties of cholesterine present to those of the fats, we can hardly suppose that it takes its origin from them, since they for the most part become oxidized in the animal body, whereas in order to form cholesterine they must undergo a process of deoxidation.

4. It maintains the healthy composition of the blood, the chyle, and the lymph,—the three great circulating media or fluids of the economy. The amount of fat in the blood does not vary much in a normal condition, and is, according to Boussingault's numerical investigations, wholly independent of the amount of fat contained in the food: it varies from 0.14 to 0.33 in health. Fat in blood is mostly in a saponified state, but in many diseases the blood has been observed to contain large quantities of unsaponified fat; it is principally deposited in the cells or blood corpuscules. Berzelius said that in the latter it chiefly occurred as phosphorized fat, but at the present day there is reason for questioning the propriety of this opinion, and it is probable that the fat in this situation exists as glycero-phosphoric acid, similar to that discovered by Gobley in the yolk of the egg. Fat of the blood also exists in the serum; here only a small part is free, the great bulk is present in large quantity as a soap; fat also exists in serum as the crystallizable lipoids, cholesterine and serolin. The fat of serum, compared with that of the blood corpuscules, may be regarded as more readily crystallizable, less tenacious and colorless, but far inferior in respect to quantity. Chyle differs from blood in chiefly containing its fat in a free or unsaponified state, very little being in the soapy state. Tiedmann and Gmelin always found chyle very rich in fat, and the milky turbidity of this fluid as well as that of the lymph is owing to the oil globules which they hold in suspension.

5. Adipose food furnishes various secretions with their normal supply of fat constituent as the biliary and the lacteal:—mucus and sebaceous matter. Of these milk contains the largest share by far; on an average there is 2.9 per cent. in woman's milk. The oil globules rise to the surface when milk is allowed to remain at rest, constituting cream, which also includes some of the casein, sugar and salts. These may be mostly separated by the process of churning: this ruptures the envelopes of the globules, and butter is formed by the aggregation of the contained oil.

6. It contributes to make up a share of certain excretions. Thus it is a constituent of the fæces and of the sweat. The oily character of the perspiration was for a long time ascribed to the accidental incorporation of sebaceous matter, but Krause has shown that in reality the sudoriparous glands themselves secrete true fat—by testing the fluid

collected from the palm of the hand and sole of the foot where there are no sebaceous glands.

7. It is useful as the agent by which the metamorphosis of animal matter occurs. This opinion is promulgated by Lehmann, and originated with him. He tells us he was long since led to it upon theoretical grounds; but that, latterly, this subjective conviction has been converted into objective proof by numerous experiments and observations. He has thus been assured that fat is *essential* to the accomplishment of perfect chymification, being indispensable to the reduction of nitrogenous articles, and contributing to the complete solution of the other varieties of food. He surmises that the pancreatic fluid owes a portion of its utility in promoting chylification to the fat it contains; and that, after fat is absorbed by the intestinal villi, he believes it influences the metamorphosis of the albuminous constituents of the chyle, and performs some undefined use in the blood and nervous system, where as we have seen it is an abiding constituent. Not ending here, fat takes a highly important share in the evolution or formation of cells and tissues, which is one of, if not, the most important and mysterious of the living functions;—in other words, fat is regarded as a factor by which the various structures of the body are constructed. It renders essential aid in the process of converting proteinaceous food into cells and fibres; this application of the general idea of metamorphosis by fat was first suggested by Acherson, who discovered some years ago that a fat globule placed in an albuminous fluid, always obtained from the latter a capsule of coagulated albumen. The connection between fat and cells generally has been still further shewn by other inquirers, who have demonstrated that nucleoli always contain fat; that exudations indiscriminately are adipose; and that newly secreted plasma contains more free fat than after the development in it of nuclei and cells. And lastly, as a metamorphic agent, fat effects the solution and consequent removal from the system of morbid products of the proteine type. Albumen and casein undergo solution when placed in contact with fatty bodies along with sugar;—the latter is also converted into lactic acid. From this fact it has been inferred that morbid structures, as tubercle, in the living organism might be removed, and that adipose food might prove a valuable therapeutical agent. Under this view cod liver oil has been extensively used in tuberculosis and scrofulosis. En resumé, from what has been said, you can understand why starvation should occur when the proteinaceous matters—though the building materials—are supplied in even large quantity, the reason being simply they want the fat necessary to institute their metamorphoses into structures, &c., fitted for the living economy.

There are yet other uses that this nutriment is said to subserve: but they are of a more questionable character than the preceding, viz.:

8. Fat maintains and supplies the heat of the body. Liebig was of opinion that this was its sole use when not taken in surplus quantity; having entertained the idea that fat was intended to be burned in respiration and to sustain the animal temperature by its combustible elements uniting with the oxygen of inspiration—that the fat was transferred to the blood and was burned at the lungs like the oil in a lamp, or the coke in a steam engine. I have no doubt that heat is generated partly by the oxidation of fats—but, neither can I believe that this is their sole use to the body, for we have seen the denial of this in what has been before stated, nor can I consider this consumption to be the only cause of calorification, for as in former lectures it was told you, the proteine compounds in becoming transformed develop heat, and the same is true of metamorphosis generally. Liebig in his exclusiveness evinces a great mistake, into which he has fallen, in regarding animal heat as too independent of other processes.

9. In excess it serves the purposes of stored up nutriment in times of scarcity. This opinion, I think, emanated with John Hunter, who regarded fat as a provision stored away for an emergency in case of failure in the ordinary supply of food. Accordingly we find the adipose tissue the first to disappear during starvation or during exhausting and protracted diseases. Should it happen that all the fat has disappeared, the proteine tissues next are devoured; hence the mucous membranes suffer from a disintegration of their epithelium, as is constantly witnessed in the sore throat and diarrhœa in the last stages of phthisis, and also in the mucous membrane of the stomach. Lehmann denies that fat is ever stored up nutriment; without, however, as far as I can see, sufficient reason. Upon his own admission, it disappears under circumstances of starvation, and if, as he allows, it discharges an essential operation in nutrition, I cannot discover any discordancy in ascribing to it the sustenance of the body when the supply of other nutriment is withheld. The chief obstacle in his way to receiving the fact is the difficulty of understanding how a vesicular membrane like adipose tissue can be amplified or resorbed; but whatever may be the mode by which this happens, there can be no question that it is accomplished, and it is equally certain that variations in the amplitude occur synchronously with excessive and defective feeding. A further impediment to him was to understand how the resistance to the exit of oil from the cells caused by the moisture which surrounds the walls could be averted; but this has been latterly removed by Mattenci, who has shown that olea-

ginous particles will pass through animal membranes by endosmis to diffuse themselves through an aqueous liquid, provided the latter is alkaline. It is on this principle nearly that lacteal absorption, you remember, is effected.

10. According to Truman, it probably compensates to a certain extent for the want of vegetable substances as food. This observation is supported by the fact that the hyperborean nations who consume the largest quantities of animal fat, are very often for months and even years unable to obtain any vegetable food whatever. The Esquimaux, for instance, who consider a draught of whale oil a luxury, live chiefly on blubber, which is the fat of the cetaceous whale: and the Russians, Cossacks, &c., will eat candles, soap, and tallow of every description.

Sources.—These are direct and indirect.

The Direct are various, as *ordinary fat, marrow, livers, roe or ovary; butter; oily seeds, as acorns, cocoa, chestnut, hazel nuts and walnuts; chocolate; certain animal and vegetable oils.

There are three vegetable oils which are used as aliments; they are the almond, olive and castor. Of these the principal one used by Europeans is the olive; but in China it is stated that castor oil is u ı ı ent,—it is probably rendered so by being subjected to a particular depurgandizing process.

From the animal kingdom is procured the much vaunted cod liver oil, and the same department of nature furnishes two allied sources of adipose food, wax and spermaceti.

Indirect Sources.—A very important discussion in a Zoo-chemical point of view was long waged concerning the formation of fat. It involved a remarkable difference of opinion and enlisted numbers of the most learned men in its cause. As rival champions Liebig and Dumas entered the arena, the first distinguished as the German, the latter as the French chemist. The point at issue seems a simple one: it was, can the system manufacture fat or can it not? Beginning in this small question, the answers so enlarged and grew that they attained colossal proportions. They involved a full examination of the inquiries, varied as they are, relative to the origin, to the sources and to the uses of fatty food. And not even resting there, the controversy encroached backwards and shook the whole theory of dietetics and nutrition. So that at length it came to pass that not an unfitting test of a man's belief concerning the latter subjects might be framed from his answer to the original question, can the system manufacture fat or

* The descriptions and comparative value of these were given in the lectures, but are here purposely omitted.

can it not? I believe it can; but first listen to the German and French disputants. Liebig believed that fat was formed in the body by the conversion of certain substances, as starch, gum, sugar, alcohol, &c., used for food; the change consisting in the loss of oxygen or carbonic acid, or both. Thus an equivalent of starch became one of fat, by yielding up 1 of carbonic acid and 7 of oxygen. Dumas on the contrary denied the truth of this theory of transformation, and contended that all fat pre-existed as such in the food and was merely subtracted from its associate principles by the system. Experiments were adduced on both sides and each one appeared to be fallacious to its adversary. Liebig fed geese on maize, and as they fattened, he considered this fact corroborative of his hypothesis, because he had found maize to contain no fat. Dumas, however, declared that maize did contain fat and appealed to his own analyses in proof. The fact now appeared that these great men did not agree as to what was fat. Liebig considered that only those matters were adipose which possessed all the properties of fats; while Dumas regarded any substance to be such which possessed one single property of the class, viz: solubility of the article in ether. Now applying the contradictions to the original question, they stand thus in answer to the latter;—Liebig admits the system does form fat. Dumas denies that it does so. And extending these positions to the theory of Dietetics we conclude either that the constituants of the tissues do not always exist in the food, but are formed by an action of the vital parts out of materials which bear no resemblance to them; or else we must infer that the components of the organism pre-exist in the food and that nutrition is merely a separation of these in the system and an appropriation of them to its respective parts. Now we know from what we have already seen in regard to other aliments that the first opinion and not the last is true. But to return to the fat question. Not contented with the auxiliary aid of several coadjutors, the rivals referred the question to the committee of gelatine, who supported Dumas. Liebig nothing daunted replied, and among other remarks made the following very pertinent ones, which I believe are still unanswered. "Starch, gum and sugar contain, even with their large quantity of oxygen, all the ingredients of fatty bodies; and the formation of butter in the body of the cow and of wax in that of the bee leave hardly any doubt that starch, sugar, or gum furnish the carbon for the formation of the butter or of the wax. It is further certain that the brain, the nerves, the blood, the fæces and the yellow of the egg contain a substance in considerable quantity with a far smaller proportion of oxygen, than the known fatty acids, a substance which has not hitherto been found in the food of gramniverous animals."

These as well as other data that will presently be adduced are sufficient to authorize us in saying the system does manufacture fat from non-adi. pose articles of food. But in admitting this, we are not to overthrow all we have received as to the appropriation of oleaginous food by the system from its direct supply. On the contrary, both solutions are consistent with each other, and the two must be maintained. The double statement then is correct; fat if already formed can obviously be readily appropriated or assimilated, and proper materials may be converted into fat. Lehmann takes a like view and asks the question, Does the animal's body continue to exercise its power of generating fat when a sufficient supply has been conveyed to it by food? He inclines to the affirmative, cautiously premising that the extent of development may vary at different times, and thus accounting for those cases of morbid fattening, either general or local, when the function is excessive. We are now prepared, having given a quietus to the questio vexata, to discuss the indirect sources of fat. You can understand that if we were converts to Dumas' mode of thinking, we should see no indirect sources of fat and all further description must cease. But with the other side let us proceed. The indirect sources are of two classes. Carbo-Hydrates or non-nitrogenous &c. 2, Nitrogenous.

The carbo-hydrates are those agents just now mentioned, viz. starch, sugar, gum, alcohol, &c. Fat may be formed from all of them. Vegetables certainly produce adipose principles, by their organizing powers, from starchy and saccharine materials. For evidence of this we have but to look to the transformation in the gradual disappearance of fecula and its being replaced by oil in the castor oil and other oily seeds, also in the sugar cane where the sugar is gradually displaced by wax. Fat has also been artificially formed from sugar by the action of caseine at a high temperature. With animals where all the difficulty so long lay, many equally strong facts might be adduced. There are those for instance which Liebig has advanced in his unanswered appeal. Yet more, M. Persoz found in fattening geese that the adipose matter formed in their bodies was more than double the amount that could be extracted from the maize consumed. Besides herbivorous animals contain peculiar fats such as stearin, spermaceti, &c., which do not exist in vegetables.

Nitrogenized Substances include the proteinaceous compounds. Albumen, fibrin and casein are each convertible into fat. Boussingault has ascertained that geese fed upon pure casein or albumen had more fat in their tissues than could have been taken into their stomachs. The ability of albumen and fibrin to be transformed into fat is strongly demonstrated by pathologial occurrences, where such a change does actually proceed.

Virchow has satisfied himself that local polysarcia was a common event of inflammation in consequence of a transformation of albuminous deposits previously exuded: thus fatty kidney has succeeded albumino-nephritis. Mr. Paget has shown that muscular substance is liable to a degeneration or conversion into fat, producing one form of muscular atrophy that must be distinguished from another in which fat is deposited external to the fibres, and causes their atrophy by its pressure. Persoz observed that in the morbid fattening of geese, a large amount of oily matter existed in the blood at the expense of the albumen. Bodies buried in favorable soils, for a length of time, are found converted into adipocere,—a substance resembling spermaceti,—and this same change, according to Blondlot may at any time be produced in albumen simply by the agency of moisture and a partial exclusion of oxygen. Wagner, lastly, found that testes introduced within the abdomen of hens were, after bring detained there sufficiently long, converted into fat—Leaving these pathological examples out of the inquiry for they are due to a topical change in the part where they occur; let us discover what is the seat of the changes of non-fatty aliments into fatty matters? Two sites have been selected—the intestines and the liver. Against the former it may be urged—that if fat were manufactured in the primæ viæ the chyle would contain more fat after a vegetable than after an adipose animal diet, but the contrary has been noticed. Again, Boussingault did not observe any instance in his recent experiments on ducks in which the fat contained in the intestinal contents was increased by feeding the birds on starch or sugar, though such must have been the case if the metamorphoses of these substances occurred in this part of the system. That the liver is the manufacturing site of fat, seems more probable. Bernard thinks that the liver makes fat is proved by his having discovered fat in abundance in the hepatic veins and likewise in the liver, while he could not find it in the portal vein. He further proves that it is chiefly, if not exclusively, during the act of digestion that the liver performs this newly discovered function. The same theory is suggested by the examples I formerly mentioned of fatty liver produced by Phthisis, and in geese by gross feeding, and any other circumstance, that prevents the subjects from consuming their adipose material. And in conclusion, it may be asked *how* fat is formed from other substances? Liebig's scheme, formerly mentioned, of starch turned into fat is a plausible one, but says Lehmann, "so long as we are ignorant of the grounds on which a process is based, although we may be acquainted with the individual factors, we must defer all idea of a scientific explanation: there is however no deficiency of imaginary schemes to interpret the

transformations." After alluding to the false support these schemes seemed to derive from the butyric fermentation of sugar, he adds, "we are for the present constrained to regard this view as a mere fiction illustrated by chemical symbols, since whatever corroboration it may acquire from future experiments, it is at present wholly devoid of all scientific support."

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. XXI.—*Human Histology* in its relations to Descriptive Anatomy Physiology and Pathology, with 434 illustrations on wood. By E. R. Peaslee, M.D., Professor of Physiology and Pathology in the New York Medical College; of Anatomy in Dartmouth College, and of Surgery in the Medical School of Maine. Member of the American Medical Association; of the New York Academy of Medicine, &c., &c. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson. 1857, p.p. 616.

There is a sore evil which we have seen under the sun, and it has infected more than one victim to the *cacoethes scribendi*. Under the air of learning it breathes forth veneration and lives in the consciousness of a foreign pride. Disdaining homely productions or national efforts, it delights in those of a different tongue, and draws from the compositions of unknown minds the information it characterizes. It creates an unwholesome taste for novelty, and pushes the respect for authority to the verge of the ridiculous. By nurture it grows yet more uncouth, and causes in lieu of a professed liberalism a total desertion of personal judgment. Of the nature of a true parasite it draws support from an invested trunk of more substantial strength, and, after all the exhaustion of which it is capable, appears in the end of very diminutive proportions. The writer on whom this vice battens, is fond of appealing to authors with foreign high sounding names, who write in a language different to his own, who are but little known in his own land, and whose very mention should awe into submission the presumptuous doubts of an opponent more familiar at home.

In its meaner exemplifications its absurdity is too obvious to be overlooked by the least discerning. Then the less ascertained about the author, the more sesquipedalian his name, and the further off his residence,—the higher still are his claims to regard and preference. The more barbarous his distinctions, the more novel his appearance,—the more

mighty grows the great unknown idol in the conception of his adulators, and in correspondence to their ignorance does wonder amplify his magnitude as a colossus or leviathan of literature. From his statements dissension is unpardonable; they are to be received unquestioned. Original inquiry is to be shut up as an unseasonable intruder, and allowed to rest in the shade of his umbrageous cover.

For aught the admirers know the object of their imitation is held in little or no estimation among his own people, and the depreciation in his own country may be a just one, sustained by an impartial scrutiny of his actual attainments. It matters not, for the selection has been grounded on other considerations, and herein lies the folly of the evil.

Or to see it yet more clearly, reverse the relation of the respective parties. Giving foreigners credit for the same predilections we have,—although thereby we may be doing them gross injustice,—how preposterous would it not appear if we found some German or Norwegian writer quoting largely from one of our publications, simply because it was edited by John Jones, or Mike McFee, names which though proverbially common with us may tickle his foreign fancy as wonderfully dignified and portending for those who rejoice in them no ordinary share of ability. And how much more dizzy would the height of ridicule reach if we found him turning aside from the good of his own tongue to repose in the extremely questionable authority of Jones or McFee unknown, more particularly if further actuated by the temptation that their writings contained things hard to be understood, and put forth expressions as singular as to him their names appear.

We have been led into these observations from an examination of the work now under notice, from which in our opinion evidences appear of some of the marks of the sore evil that has been described. After an examination of the first part which is intituled "Stœchiology," the impression left on our mind was that it had too much of "*Robin* and *Verdeil*." However formidable may be their appearance in their original three tomes, it certainly does not show to advantage in Peaslee's curtailment, and though their tone may be *distingué* in Paris, it would scarcely be considered proper across the channel, so that its healthy condition might profitably have been first investigated by a reference to certain English standards of comparison. Under the head of "*carbonic acid*," p. 44, it is said:

"It is dissolved in both the serum of the blood and the corpuscules, there being more in arterial than in venous blood (R. and V.) * * * The greater amount of carbonic acid gas in the arterial blood confirms the idea that it is set free in the lungs from the carbonates in the blood by the action upon the latter of pneumonic acid (R. and V.)"

The latter substance is corrected in the list of errata, and called *pneumic acid ;* no other part of the paragraph appearing there we are bound to receive it as designed, correct and revised. Short though this extract be it needs no great share of acumen to perceive its erroneousness,—or rather that it is redolent with errors. Not to be too minute it will suffice to point out these:—The existence of carbonic acid gas in arterial blood! the wilful perpetuation and extension of the error by calling the proportion of this gas greater in arterial than in venous blood!! The contradiction openly made of the mode of existence of this acid; it is previously implied to be *free*, to be as "a gas," "in solution," "in its gaseous state," and then subsequently, as we see, to be *combined* as "the carbonates" which are decomposed in the lungs!!! The unqualified assertion for established truth of an impudent assumption that there is a free acid in the lungs, the "pneumic"!!!! And the rich idea that unrestrained chemical action takes place between it and the carbonates, attended with the liberation of carbonic acid gas; in other words, that, notwithstanding the reign of vital control in the lungs, the same turbulent effervescence takes place at every breath we draw that does in our tumblers when we quaff off the flowing nectar or the less pretending sodaic powder. If so be, here is an unrecognised explanation of the vesicular murmur which we offer the friends of the Stethescope!!!!!

These announcements, truly *novel*, are supported by a double reference to "R. and V.," and their correctness P. does not presume to call in question. Apparently he sees in them nothing antagonistic to more vulgar, though more sound opinions. The foreign reference he may consider as sufficient to command obeisance or acquiescence, and enough to justify our taking on the same terms equal enormities, were it possible to be guilty of them. Another wonderful proposition—at least to us—is in a few pages further on:—

"But it (water) confers the liability to sudden changes in the blood or in the organs from putrid, purulent or mephitic infections, facilitates the transmission of poison, procures the aptitude to decomposition, and hence in many cases induces sudden death."

Here ends the sentence, and next comes the authority of "R. and V." From the phraseology the meaning is not at first quite clear, but probably it may be fairly said to be, that, when a morbid poison infects the blood, the presence of water may instigate such changes in the latter fluid as may end in sudden death. The same is equally inferrible about the organs. Are we to suppose from this that the blood or organs have been anteriorly free from the presence of water? Surely not, for they are never free of it. Water ever exists in

large amount, constituting, it is said, nearly three-fourths of the entire body; and any plus addition in the way of ingestion is only compensatory for the portion constantly removed by secretion or excretion, since a balance is carefully preserved. The institution of blood-metamorphoses *in transitu* is at variance with the laws of life, which, while dominant, prevent all action or change from ensuing in the blood during its hurried circulation. Were changes practicable in this important fluid with the freedom that some writers suppose, the most disastrous consequences would inevitably follow the simplest occurrences in which we participated; for instance, were such not withstood, how frightful must be the expectation of he who swallowed successively, after a little interval, a carbonate and an acid! Why, as these are absorbed and enter the blood, so violent would be the effervescence, when the latter agent overtook the former, that nothing short of a blow-up of the entire vascular apparatus could happen! This indeed might follow, were it true that water institutes changes during its presence in the blood; changes lastly, which, as we have seen, must, if the *dictum* be right, be ever in operation as this agent is never wanting.

Robin and Verdeil are prolific in new names and after them in humble distance Peaslee copies without considering their applicability or disadvantages; he bows down his judgment before his masters' and offers up in practice a servile copy. Some of these coinages we dislike. "Osteine" for example we believe to be bad because it is designed to express a substance which contains no bony material nor property in its constitution and exists the most largely in the fibrous tissues. It is also an attempt at an improper refinement. The substance so called it is confessed is "still undescribed," p. 98, and the remarks which are made under its caption are such as properly belong to gelatine; the truth, however, is obscured, and elsewhere than here no account of this really important proximate principle is to be found. "Cartilageine" is used as an equivalent for chondrine, how happy the election is, the reader may himself judge. Next, a substance is spoken of under the title of "Elasticine," which we are prepared to say has not been yet isolated; "its chemical composition is not determined, nor is its amount determined." It was supposed and naturally that yellow fibrous tissue contains a peculiar principle upon which its essentiality depended, and then, before being procured, it is adventurously given a name, an individuality, and as much description as the fertile imaginations of R. and V. (P. following) could invent without violently outraging professional decency. We say violently, for practices such as these—i. e. imagining a thing and then speaking of it as a reality—are nothing short of deceit of low degree. Another

new name turns up in "Urrosacine, in urine," but furthermore the deponents say not, and what it may be, we and their readers are left *in obscuro*.

It were easy to extend this notice to a much greater length—we have the materials before us—but our limits are reached. The latter part of the volume, we are happy to say, we believe to be the best. The whole is got up in a way likely to recommend itself to patronage. The text is concise, and what a hard working student might think would suit him while the illustrations are numerous and really admirable.

ART. XXII.—*Essays on the Secretory and the Excito-Secretory system of Nerves, in their relations to Physiology and Pathology* By Henry Fraser Campbell, A.M., M.D., one of the Vice Presidents of the American Medical Association, and Professor of special and comparative Anatomy in the Medical College of Georgia (Augusta), with illustrations. Philadelphia: J. B. Lippincott & Co. p.p. 135.

Dr. Campbell holds that there is a reflex function between the cerebro-spinal and sympathetic system which is similar to that between the sensitive and motor branches of the cerebro-spinal, and which the late Marshall Hall termed the *excito-motory* system of nerves; and in correspondence Dr. C. names those between the cerebro-spinal and sympathetic system, *excito-secretory*. The essays he has recently issued are republications which have previously appeared; they are five in number, and are designed to substantiate the propriety of the author's opinions just stated. They have appeared opportunely, for latterly several contemporaries have contended for a priority or share in the distinction attendant upon the enunciation of this important fact in physiology. Dr. C.'s contributions serve to establish that he has long had his attention directed to it, that he has for years back felt its importance and has directed his energies towards its demonstration. As early as the year 1850 he made reference to it in a paper "on the influence of dentition in producing disease," read before the Medical Society of Augusta, and since then his views have been gradually more matured, and been corroborated by personal attestations of an anatomical character. In consequence of an inacquaintance with his investigations the late M. Hall had not given them that consideration to which they were entitled, but was rather inclined to believe that he himself was the first annunciator of the existence of the system of nerves, for which, Dr. C., as we have seen, claims the priority of dicovery. The act, however, was

one of pure ignorance, and not designed to cast any slight upon the labors of the latter gentleman, for upon their being represented to him, Dr. H., with the candor of a liberal mind, admitted the propriety of the author's position, and in a reply to a statement of the circumstances, observed in his sententious style, "there is in the *excito-secretory* function, as applied to pathology, an ample field of inquiry for his life's (Dr. C.'s) career, and it is indisputably *his own*. He first detected it, gave it its designation, and saw its vast importance." Under such a flattering avowal the author appropriately rests his merits and gracefully inscribes his productions to its recorder with the mention of whose name their present exposition also terminates.

While we thus aid in publicly spreading Dr. C.'s professional fame, we conceive it only just to express our feeling that he has discovered no new law, nor new system, nor new principle, but has merely shewn forth a manifestation of an old action, by an old mechanism, and through an old influence previously unconsidered. The afferent and efferent nerves of the excito-motor system have their analogue in the excito-secretory. The initiative sensory surface or point of departure is the same in both. The signification of a controlling centre or presidential seat, completing byconnexion, the nervous are engaged, is equally alike. The leading rules of the operation of the one are obviously concordant with those of the other;—as in the one set excitement of the nerve periphery on the surface evokes action in the co-related part which forms the opposite ending of thesystem, so it is with the other. Sedation, in each case, of the excitor is pretty sure to be marked by depression of the motor or secretory in extension. Virtually the *terminus a quo* in both is precisely identical and the difference of the *terminus ad quem* is most in the office that it may subserve. It is therefore comprehensible that the knowledge of the original truth may have suggested the existence of the last appreciated, for there is much in the former, which, to a mind capable of happy generalizations, might have led to the discovery of the latter. The excito-motory would, upon reflection, prompt the expectation of an excito-secretory, even as we can now imagine that these two do not include all the divisions of the great reflex system and will lead to other excitos which, in time, will find specification in equally precise and measured terms with their antecedents.

This attainment reached, however, the problem now, in reality, only begins; the proposition, so to speak, is given and the solution has to follow. In regard to this point we believe Dr. C. is entitled to all honor and distinction for his reflections and observations which serve to demonstrate the truth of an excito-secretory set of nerves, and accordingly with much pleasure we accord to him the full meed he merits.

The process of arriving at so-called *new* things in medicine now exposed is, we consider, one of more common practice than is commonly suspected; and is one which probably more than any other has led forth into the arena of public literature the largest number of aspirants for notoriety and elevation. By its abuse the simplest truth capable of an extended application is revived under manifold phases. That which should be indivisible is inducted into a multitude of dismembered branchlets and the harmony of a few general principles is destroyed in the confusion attendant upon a practical separation of forced or assumed distinctions.

ART. XXIII.—*A Dictionary of Medical Science.* By Robley Dunglison, M.D., LL.D., Professor of the Institutes of Medicine, in the Jefferson Medical College of Philadelphia. Revised and very greatly enlarged. Philadelphia: Blanchard & Lea. Montreal: B. Dawson. Quebec: Middleton & Dawson. 1857. Pp. 992.

This Medical Lexicon contains a "concise explanation of the various subjects and terms of anatomy, physiology, pathology, hygiene, therapeutics, pharmacology, pharmacy, surgery, obstetrics, medical jurisprudence, dentistry, etc.; notices of climate, of mineral waters; formulæ for officinal, empirical, and dietetical preparations, etc., with French and other synonymes." Its indefatigable author has bestowed no ordinary share of labor in accomplishing the troublesome task At all times a work of excessive pains-taking and assiduous research, the compilation of a dictionary of Medical Science is one of particular arduousness. Having but few antecedent sources of a similar kind, the usual aid, which other laborers, in similar pursuits meet with, is not enjoyed, and in consequence of the liberty so freely used by writers of every class, in coining new terms in medicine, and modifying the signification of old ones, it is indispensible that the literary acquaintance of the lexicographer be of the most extensive kind. The enterprise achieved by Dr. D. would best appear by a comparison of his work with some of the older dictionaries, as those of James or Hooper, or even by marking the differences between the various editions. The present, for instance, is not merely a revised and corrected improvement upon the antecedent, but it actually contains about "6000 subjects and terms" in addition. After escaping from the first impressions felt by a consideration of the magnitude of the exertion and the fancied Herculean efforts necessary to its production, we may briefly view it as a completed work. The words defined are most numerous—thousands upon thousands—from a rough calculation we should say over 65,000; the various combinations, diversities, and other pecu-

liarities of elementary or formative terms is preserved; the ordinary meaning always given in clear intelligible expression; and when an important subject occurs a synoptical history is appended embracing the leading points or features. The equivalent translations of the terms in the principal languages is appended. When circumstances permit various tabular arrangements are introduced to facilitate the students' acquisition of the matter A large collection of prescriptions is affixed to the account of the principle articles in the materia medica; and useful statistical columns on various interesting topics have been drawn up. From these peculiarities, which we do not profess to comprise all the distinguishing marks of this great work, the reader may form some idea of its vast importance and unusual value. We have therefore great pleasure in strongly recommending it to the notice of the profession in Canada. We have no hesitation in saying it is the most comprehensive and yet concise work of the kind that has issued from the American press.

CLINICAL LECTURE.

On Chorea and Myelitis of the Chord. By Thos. Addison, M.D., F.R.C.P., Senior Physician to Guy's Hospital.

(*Medical Circular.*)

Gentlemen.—There is that case in the bed, No. 15, that boy, J. B——, aged 11 years—a delicate, strumous boy that moves about like a frog or a lizard thrown into half a hundred contortions, and which you recognise at once as hemiplegic chorea, There is that poor boy, I say, so curiously afflicted; the case is one of great interest. You observed, no doubt, some of you, when first I saw him, how carefully we listened to the action of the heart, and how I felt the skin. I will explain why I did so as we go along.

Now, whenever I see a young subject the victim of chorea, I always suspect that it has had its origin in rheumatism. I felt this boy's skin to discover if he had that sweaty surface, so characteristic of rheumatism. I listened to the heart, and what did I find? Loud mitral bruit. And what do we learn in going over the previous history, as noted by the clinical clerk? We find that about three years ago he had rheumatism; and here I may tell you, that you will often find, under the name of severe "growing pains," that you have had, in point of fact, a veritable attack of rheumatism. Are we to believe this mitral bruit was the result of rheumatism, or not?

Believe me, rheumatism is a very eccentric disease; I know none more so. There is no disease, perhaps of which we know really so little as rheumatism in its pathological essence and nature! An old physician of considerable experience was asked, What cure is for rheumatism? His answer was laconic: "The cure for rheumatism is—*six weeks!*" In other words, rheumatism must be let cure itself. I have cut rheumatism and rheumatic gout short in less than half the time with colchicum, or the powdered cormus and sulphate of magnesia, and other things; but I am not so certain that cutting rheumatic gout short by potent measures is quite the same thing as curing it. Let us, however, at all hazards mind the heart in these cases.

Rheumatism is a queer or eccentric disease, I have said. Now, it is my belief that rheumatic disease, whatever it is, *sometimes attacks the skin alone.* It is my firm belief that it sometimes attacks the heart alone. I know the rheumatic skin well; and I am satisfied also about the ravages committed by this so-called rheumatic inflammation in the endocardium and pericardium, and that, too, without any pain to attract attention. I see the rheumatic skin; and when I do, I almost with certainty predict rheumatism, which is sure to supervene. One may sometimes find the heart inflamed, by itself, but you will do well to look out for rheumatism in the joints and their synovial or ligamentous tissues. This pericarditis is of a marked kind, with no pain about the heart.

But you say, What has all this to do with chorea? Well, what the relations are is not clearly made out; but that there is a connection or relation is perfectly evident. If we look at it in this way, we find, for instance, in acute endocarditis, the patient's manner is often very remarkable, more so than in pericarditis; he may be even quite delirious or labouring under decided cerebral complications.

Some ability and ingenuity are shown by Dr. Kirkes and others in tracing certain clots or shreds of fibrinous matter, as washed from the endocardium into the brain, causing irritation there. On the continent, I find they look on the matter in a less mechanical way, and they say a poison—say, like that of some other serous effusions—is carried to the brain from the rheumatic deposit in the endocardium. I am afraid we have too many analogies in pyæmia and other affections to give stability to this hypothesis.*

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* Chorea is derived from the word *choros*, a dance. During the middle ages, we learn from Hecker, sundry choreic ravings attacked the peasants at Kolbig, Erfurt, and Utrecht, in 1374. At Aix-la-Chapelle the sick thus seized "appeared to have lost the control over their senses, and were only relieved by swathing

There are several curious associations, I have said, between the brain and heart, epilepsy, for instance, affects the heart. Sometimes, a fit of epilepsy extends itself in a voilent tumult of the heart, I was consulted some time ago by a gentleman—a manufacturer at Huddersfield, or somewhere down there—for some curious functional derangement of the heart I told his family doctor it was epilepsy of the heart; and I believe my friend thought I did not know what I was saying, and smiled at me but the epilepsy of the heart, with those curious fits of unconsciousness he could not understand; and how puzzling they are you will find when you get into private practice; so that you cannot give too much attento them. Well! these anomalous fits of unconciousness and tumultuous palpitation ended, nevertheless, in regular fits of epilepsy—some of the most marked, perhaps ever seen. I do not pretend to explain how this is brought about; I only know the practical bedside fact. The relations of the fit in epilepsy itself are very peculiar; but emotional influences will produce palpitation of the heart; and, I suppose, in some such way, epilepsy produces it as a sort of first of "three warnings." Emotional influences or fright will cause chorea; in fact, it is the most common of all causes of the disease. A dog runs after a child; a ghost story is told by a foolish nurse; a house takes fire, and child is exposed to danger; the child, perhaps, is seized with chorea: some horrible agitation† is set up in the emotional (or central) parts of the brain, and chorea fits are the result. The complication or connection of chorea and heart diseases is so common that I always look for it. See in that case of gout, on the other hand, in that poor woman in the other part of the ward, you can scarcely tell it from rheumatism; she has renal disease, with gout in her foot; but her heart is perfectly free, and, in all probability, will continue free. How curious these pecularities are!

Yet gout and rheumatism are pathological first cousins; but why does one affect the heart, the other not? I cannot tell you. Well, we

the body," and various incantations common at the time, These choreic ravings were mixed up with various religious ravings, evidently the reflection of sundry broken images, as from the broken mirror of some popular impression of the day. The name "St. John's Dance" was given to chorea, as it was at one time thonght chorea, originated in the revels of that festival and St. Vitus's dance, because of the cures effected at the celebrated chapel of St. Vitus. This disease continued two centuries. Paracelsus (no very reliable authority) gives a long description of the epidemic, and the Arabians called it a palsy.

† It was recently stated that a young man dropped dead of fright, at a theatre, on seeing the Ghost in 'Hamlet' stalk forth for the first time on the stage; and a similar case of death from fright, not long since formed the subject of a coroner's inquest.

gave this boy a mild mercurial first, to settle all right in the *primæ viæ*, and we shall follow that up with the sulphate of zinc, in which I have great faith as a remedy in chorea. At Guy's at least, we have not yet hit on any thing equal to it.

These poor patients with chorea are often very ludicrous, but very distressing to observe. I have seen four or five deaths from the excessive exaggeration of the chorea symptoms; like lizards or eels, such patients are contorted into a myriad of forms; they glide and twist and tumble about the floor and out of bed or into the fire! I have known chorea to begin with pregnancy, and go on increasing as the poor big-bellied woman got bigger and more unwieldly, and only yield when the uterus became empty again! Dr. Hamilton once thought purgatives cured chorea; but I do not believe this is invariably found. Sulphate of zinc or oxide of zinc is the remedy we have made out as most valuable at Guy's. I have known a patient take of sulphate of zinc (not oxide, mind) so much as eighteen grains four times a day. My attention was once drawn by the late Dr. Chambers to a peculiar cast of countenance such patients acquire who are taking these very large doses of zinc: you know, of course, the dark tint or tinge produced by nitrate of silver, the dark line of the gums by lead, &c. We were attending a patient for another disease altogether, and though Dr. Chambers could not describe what it was, he said, to one in the apartment, "Why you are taking zinc, are you not?" and it turned out that he was. The nearest idea I can give you of the zinc complexion of the face is, that it is destitute of the freshness and cherry redness of rude health, and the skin of the face assumes a glossy sameness of tint very like pewter; in fact, Dr. Chambers knew the "pewter face" very well; it requires the light to fall in a particular direction, and then you will see it: the hint may be of use to you. We will now say a few words about the patient in the bed No. 20. He has been in the habit, he tells us, of carrying heavy loads on his head; this, I need not say, produces a strain on the muscles about the neck, and pressure on the veins. Well, he has had fits of unconsciousness, and now has excessive pain of a neuralgic character in his limbs. We had a man not long since under care, you recollect, with what I called, "*ligamentous rheumatism*." I have seen more than once this sort of ligamentous rheumatism attacking the delicate ligaments, the odontoid, and others of the articulation of the axis and occipital bone and others of the axis and atlas; in one case of a boy it threatened to end in universal paralysis, as the thickened membranes no doubt pressed on the medulla oblongata, producing a somewhat common disease, myelitis of the medulla oblongata or chord, or perhaps mechani-

cal pressure. In a woman with the same disease I verily believe we saved her life by keeping the head, almost in splints, perfectly quiet. We will adopt the same plan in this poor man; we shall support him and prescribed cod-liver oil and tonics, and you will see the result.

THERAPEUTICAL RECORD.

Coffee and Lemon-Juice in Ague.—M. Von. Holsbeck draws attention to a mode of treatment he has found useful. Infuse an ounce of well-roasted coffee in three onnces of boiling water, and having strained the fluid, acidulate it with lemon-juice. The whole is given at once, five hours before the paroxysm.—'Presse Belge,' No. 42.—*Medical Times and Gazette.*

Pressure in Phlegmasia Dolens.—In relating the case of a young man who had suffered from phlegmasia dolens, and in whom the superficial veins continued much swollen, M. Trousseau cautioned his pupils against applying in similar cases firm bandages. The deep-seated veins being obliterated, this enlargement of the superficial ones is a necessary consequence, and compressing them by a firm bandage would completely interrupt the circulation of the limb. A moderate degree of pressure, however, is admissible, as giving support to the walls of the superficial vessels, and preventing their becoming varicose.—'Gaz. Hôp.,' No. 137.—*Medical Times and Gazette.*

Local Application in Eczema of the Face in Children.—Dr. Brehend in a note on the treatment of eczema, recommends the employment of the following combination as a remedy for the numerous scales which frequently cover the face of children:—Cod-liver oil, half an ounce; carbonate of soda, half a drachm. Mix.—*Ibid p.* 272, and *Dublin Hospital Gazette.*

Chalybeate Mixture and Artificial Chalybeate Baths.—We are indebted to M. Lambossy, of Nyon, for the two following formulæ:—

Chalybeate Mixture.—The two following solutions are to be sent to the patient: No. 1—Take of pure protosulphate of iron, two and a half drachms; distilled or No. 2.—Take of carbonate of soda, half an ounce; rain water, eight ounces; dissolve and cork closely; distilled or rain water, eight ounces; dissolve. To make use of the foregoing, pour a large teaspoonful of each solution into a of cold water; on shaking the mixture a greenish-white precipitate is obtained, glass which it is of importance to swallow before it changes colour. Seltzer water, soda water, and especially white wine, are the beverages which patients prefer to substitute, as vehicles for the chalybeate, for plain or sweetened cold water. Dose.—A large teaspoonful of each solution three times a day; after a few days the dose may be doubled.

Chalybeate Baths.—Take five or six ordinary quart bottles, fill them with vinegar, and add to each three or four handfuls of filings, or better, turnings of iron; leave the bottles open and exposed to the air; the reaction is terminated when the liquor has acquired the taste of ink (acetate of iron). Proportion for a bath, the fluid contents of one bottle. Duration of the bath, from one to two hours. The iron is to be left in the bottle, and may be used again by adding a fresh proportion of vinegar. The water of the bath may be made to answer several times by adding merely half a bottle of the above liquid.—*Dublin Hospital Gazette.*

PERISCOPE.

1. Operation for Imperforate Rectum not Impracticable. By *C. E. Buckingham, M.D.*—William the son of William Lund, was born on the 6th of December, 1851, and on the morning of the following day the nurse reported that there was an obstructed anus. On examination, the cleft of the nates was found sufficiently marked, but there was on evidence of an anus, either by protusion or discoloration. During the night there had been occasionally bilious vomiting, and latterly straining, as if to evacuate the bowels. There had been no discharge of urine. The countenance looked badly, and there was lividity about the mouth and eyes. Was somewhat stupid; did not cry, but was constantly moaning. Had no food of consequence.

Operation thirty-two and a half hours after birth, with the assistance of Dr. Henry Osgood Stone. The child was held upon the lap of the nurse, its nates resting over the right knee, and the knees raised as for lithotomy. I made an incision in the centre of the cleft of the nates, from the scrotum to the coccyx, and crossed this with another, at right angles, from the tuberosity of one ischium to the other. Dissection was carried on with a sharp-pointed straight bistoury, backward, and a little to the left, for two inches. No evidence of the neighborhood of the rectum being obtained with the finger, I passed a hydrocele trocar into the wound, in the same direction, a half-inch further. On withdrawing it, meconium was found upon it. The wound was then enlarged with the knife, and a female catheter was introduced, through which an enema of warm water was administered. There was immediately a fair discharge of meconium, and a slight discharge of urine.

The child cried but little, and the whole loss of blood was not much more than two drachms. A few spoonfuls of milk and water was given, and it was dressed in the usual manner, no application being made to the wound. Half an hour later the moaning had ceased, the child looked brighter, and there was a profuse dejection.

5 P.M. Has had two full evacuations, but has not vomited nor passed urine. At 5 P.M., on the 8th, I introduced a sponge-tent two and a half inches, with some little difficulty. During the attempt at introduction the efforts of the child to evacuate the bowels produced an audible passage of air through the penis, which was rendered visible by the spattering of urine, and perceptible to the hand, which was laid above the pubes.

Dec. 9th. Removed the tent, immediately after which he passed a large amount of almost colorless urine in a jerking stream. No passage, either fluid or solid, by the anus at the time.

I have the regular reports of each visit, but select only such as are of particular consequence.

Dec. 14th. Tried unsuccessfully to introduce a bougie of more than one fourth of an inch in diameter. Umbilical cord has not yet separated.

16th. Introduced a female catheter with difficulty.

25th. Free dejection. Passed a bougie of ebony, seven-sixteenths of an inch in diameter.

27th. In pain all night. Tumor in left side just over short ribs, size of a small walnut. Nurse says she discovered it last night.

29th. Tumor increasing in size. Passed bougie of 25th again with ease. Some bloody pus followed it.

Jan. 1st, 1852. Opened tumor, which discharged an ounce of pus.

7th. For several days the left side of the scrotum has been swelling.

13th. Opened small abscess in front of scrotum. Child weighs 9½ pounds, an increase of 2½ pounds since birth.

22d. Bougie has not been introduced since the 16th. Has two dejections daily, and sometimes more. The scrotal abscess is well; there has been a slight gathering again on the left side, which broke yesterday and does not discharge to-day.

Feb. 13th. No bougie since Jan. 16th. Three dejections. Weighs 11½ pounds.

March 11th. Gains daily. Nurses well. Bowels open freely every day, without medicine. No bougie since Jan. 16th. Has gained another pound.

Soon after this last report, the child left town for Gardiner, Me., and returned on the 28th of May. Saw it that afternoon. Looks well, and is fat and hearty. About the 1st of May discharged urine and fæces mixed, by urethra; but has not since. For several days last week had diarrhœa, which stopped on the 21st. No instrument has been passed into the anus, which is red and shining about its edges, and bled a little on separating the nates.

Aug. 5th. Has six teeth. For several weeks has had diarrhœa and fæcal matter passes by the urethra as by the anus.

In the fall the family removed to Malden.

Oct. 21st, 1857. Saw Mrs. Lund, the mother, at 36 Leverett Street. She informed me that her boy, upon whom I operated, is still living, and is generally in good health. He occasionally has pain in the pubic region, but she considers him well. There is, however, at times, difficult micturition. The family still resides at Malden.

The above case is given, because it was stated, as appears by the records, at the Boston Society for Medical Improvement as the belief of

one gentleman, "that in the present state of the art it is better that a child born with either of these imperfections (*of anus or rectum*) should die without this operation, although it must occasionally be performed in deference to established opinion." The question may be asked if my case is not one of those exceptions which are said "to prove the rule." If it be so, then the rule is one of those which should be honored in the breach. An *ex cathedrâ* statement—as that from an officer of the Massachusetts Medical College is, and ought to be—may have an unfortunate effect upon many a timid physician, who dares not think for himself, and who would hesitate to ask the aid of one who denounced the operation. If there has been one successful case, which the profession have not known, it is very probable that in the case-books of other private practitioners there are other such. It is very likely that they have not been brought to light because physicians have had no reason to suppose them peculiarly fatal until now.

The case reported by Mr. Jones, at the Suffolk District Medical Society, has been spoken of as it were not a fair case of imperforate rectum, because the sphincter contracted upon the finger. If the child had died without a *post-mortem*, would any one have questioned its being a *bonâ fide* case? The recovery is the only evidence that there was merely a septum across the gut.

The case which I have reported is one of imperforate anus, absence of the lower part of the rectum, and communication with the bladder.

So far as my own reading extends, I do not find any great distinction made by writers between imperforate anus and imperforate rectum. The names do not convey a just idea of the malformations, particularly if, by the name, one is to decide upon the propriety of attempting to save life.

In the *Edinburgh Monthly Medical Journal* for January 1857, which must have been seen by a large number of the members of the profession in this city, is a case precisely like the above. The patient is still living, at the age of thirty-six years, and in perfect health.

Samuel Cooper not only thinks the operation justifiable, but says, "It is the surgeon's duty to do everything in his power to afford relief," and then goes on to describe the operation. He follows with the statement that "by such proceedings many infants havn been preserved," in some of whom incisions two inches and more have been made, and alludes to cases by Wolf, Hildanus, La Motte, Roonhuysen, Hutchison, Benj. Bell, and Miller.

It is certainly remarkable that these cases should have escaped the notice of the gentlemen connected with the only institution for instruction

in medicine and surgery in active operation in this city at the present time; and it will be equally remarkable if the officers of other schools should arrive at the same conclusions as they have respecting the operation.—*Boston Med. and Surg. Journal*, Nov. 26, 1857.

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2. Laceration of the Urethra from Muscular Contraction without Extravasation of Urine. *Reported from the Practice of Dr. J. C. Hutchison, in the Brooklyn City Hospital, by R. O. Butler, M.D.* —W. P., seaman, aged twenty-six years; native of United States; was admitted into the hospital, March 25th, 1857, at three P. M. Twenty-three hours before admission he was struck over the region of the left trochanter major by the end of a sugar-hogshead which was being lowered into the hold of a vessel. He was unable to walk after the injury, but could stand on both legs. On the following day, however, he was unable to stand, in consequence of the pain about the left hip-joint. Three or four hours after the accident he attempted to evacuate his bladder, but could not do so, and he observed at this time that the orifice of the urethra was closed with coagulated blood.

At the time of admission he was suffering considerably from retention of urine, which had existed since the occurrence of the accident; he also had a good deal of contusion and pain in the neighborhood of the left hip-joint, which prevented him from turning in bed. Moving the joint increased the pain greatly. *There was no pain, contusion, or swelling then, or subsequently, about the perinæum, scrotum or penis.* The catheter, introduced by the House Physician, (my hand was still disabled) glided out of the urethra at the membranous portion to the left, and passed backward, with very slight pressure, so far that there was barely enough of the instrument outside of the meatus to hold between the thumb and fore-finger. On introducing the finger into the rectum the instrument was felt immediately in front of the gut, nothing intervening apparently but the coats of the bowel. The catheter was passed into the bladder after much difficulty, and the urine drawn off.

On the following morning (26th) he was suffering from retention of urine, and Dr. Brackowitzer, who was visiting the medical wards before the arrival of Dr. Hutchison, introduced the catheter. The instrument several times glided into the false passage, and was detected by the finger in the rectum, immediately in contact with the coats of the bowel. Dr. Hutchison passed an instrument on the same day, and also observed the false passage. No extravasation of urine occurred; the catheter was retained in the bladder eight days without local pain or constitutional

disturbance. After its removal the urine was discharged spontaneously, and for three or four days without scalding, but it contained considerable mucus. He had now recovered from the effects of the contusion over the hip-joint, walked about the ward, and felt quite well; his urine, however, could not be retained as long as usual—its discharge was attended with scalding, and it contained mucus in considerable quantity, which adhered to the bottom of the vessel when turned up. He used a copaiba mixture and mucilaginous drinks, but no material change took place, and he passed into the hands of Dr. Minor, whose term of service commenced May 1st.

The irritability of the bladder was now considerable. He had to discharge his urine several times during the night, and was sometimes unable to sleep on account of pain in the bladder. The urine contained pus and mucus. Pariera brava, liquor potassæ, copaiba, etc. were used successively without benefit, and on June 13th an injection of one ounce of a solution containing ten grains of nitrate of silver was thrown into the bladder. It produced considerable pain for a time, which was followed by a marked improvement. He did not get up to pass urine for three or four nights, and the quantity of mucus and pus was greatly diminished.

Six days subsequently the injection was repeated, and was followed by the same benefit as before.

June 30th. Urine passes in a pretty good stream, unattended with pain or scalding, unless he walks about too much. The deposit of pus and mucus is one half less than it was before the injections. Being anxious to visit his friends, he left the hospital, against advice, in July.

The prominent symptoms presented by the preceding case—viz. a discharge of blood from the urethra, retention of urine, great difficulty in introducing an instrument, and the existence of a false passage, observed immediately after an accident—evince, I think very satisfactorily, the nature of the injury to the urethra. It is especially interesting in two particulars—1st. For having been unattended by extravasation of urine, which must have been owing to the valvular nature of the laceration. 2d. The rupture was not caused by direct external violence, but was probably produced, as suggested by Dr. Isaacs, by the violent contraction of the muscles of Guthrie and Wilson, and perhaps of the transversus perinei, which took place when the accident occurred.—*New York Journal of Medicine*, Nov. 1856.

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3. Ligature of the Dorsalis Penis Artery for Hypertrophy of the Prepuce,—D. D., a native of Martinique, aged thirty years, was

admitted into the hospital in December, 1856, suffering with chancre, accompanied with considerable hypertrophy of the prepuce. The chancre healed under appropriate treatment, but the enlargement of the prepuce remained.

Being anxious to have the size of the organ reduced to its normal dimensions, Dr. Hutchison tied the dorsalis penis artery, for the purpose of producing atrophy of the part by diminishing its vascular supply—that being the principal vessel through which the prepuce is supplied with blood. The ligature came away on the fourth day, and no untoward symptom occurred, except a want of action in the wound, which rendered stimulating dressings necessary. Pressure was applied to the prepuce by means of collodion, containing three grains of iodine to the ounce, which was painted over its surface. He left the hospital June 7th, the hypertrophy being somewhat diminished.

Although ligating the dorsalis penis artery in the above case was not followed by complete relief, the result indicated that the operation may in some cases prove valuable. The suggestion is therefore deemed worthy of being recorded. The arrest of abnormal developments about the face, erectile tumors of the orbit, etc., by diminishing their vascular supply, is well known. I am not aware that the above operation has ever before been performed.—*Ibid.*

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4. Novel Method of Extracting a Foreign Body from the Œsophagus. By *David Rice, M.D.*—Mrs. Field, a lady aged seventy, while eating chicken-soup, accidentally swallowed a piece of bone, the size of an American quarter of a dollar cut into a triangular form. The bone lodged in the œsophagus, about two inches below the top of the sternum. Thinking that it might fall into the stomach, she neglected to apply for surgical aid until the fifth day after the accident. In the meantime, she had swallowed neither food nor drink, both regurgitating into the mouth with every attempt.

I was called the fifth day, to try to remove the bone by surgical means. My first attempt was with a piece of whalebone, the extremity being perforated with numerous small holes, into which were fastened a dozen or more loops, about an inch long, made with small linen twist.

With this contrivance I failed, after many patient trials. I could readily reach the bone, but the loops did not fasten to any point of its angular form with sufficient permanency to enable me to extract it. I could even pass the piece of whalebone beyond the foreign body,—and ascertained that it rested upon the posterior side of the œsophagus,—standing perpendicularly, with two of its corners fastened into the gullet.

I finally took a piece of dry sponge about an inch long, and of such a shape, when dry, as to fill one half of the œsophagus. This I tied to the extremity of my whalebone-sound. Turning back the head of the patient, I passed it down the œsophagus, *in a dry state*, as rapidly as I dared to do, until I was certain it had passsed beyond the bone. I then introduced a little fluid into the mouth, which quickly reached the dry sponge, enlarging it to twice its natural size, completely filling the gullet. I drew it out, and with it came the bone, much to my gratification and the patient's relief.—*Boston Medical and Surgical Journal*, December 3, 1857.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

Unlicensed Practitioners.—There are few countries where a more stringent law exists against those who attempt to practice medicine without a license, than in this section of the Province of Canada. The course to be adopted in bringing delinquents to justice, as provided by the Act passed on the 10th day of August, 1847, "To incorporate the members of the Medical Profession in Lower Canada, and to regulate the study and practice of Physic and Surgery therein," is so simple, and attended with so little trouble, that it must be matter of surprise to every one acquainted with the fact that quacks should for a day be allowed to take advantage of the credulity of the public, and boldly practice their impositions. The responsibility in matters of this nature rests entirely with the College of Physicians and Surgeons of Canada East; and taking into consideration the very little which has heretofore been done by that body for the advancement of the science of Medicine, it is certainly to be hoped that they do not intend as well to neglect the interests of those who, after having qualified themselves as the law directs, have received licenses to practice Medicine and Surgery in the Province.

The College rigorously exacts from candidates appearing before them a strict fulfilment of all the conditions laid down in their Act of incorporation. They insist upon and must have their "pound of flesh." If there exists the slightest flaw or deficiency in the credentials of the student, he is immediately remanded, and not allowed to undergo his examination until the deficiency, whatever it may be, is made good. Such being the case, has he not a perfect right to expect that the College will

as promptly make use of the power vested in them for the suppression of quackery. Why, he may ask, should they be so alive to the importance and vitality of one portion of the Act, and allow the other to remain a dead letter? Why should their sight be so keen whenever a "ticket" is wanting to complete the number required of a student, and then become so completely dulled, amaurotic in fact, whenever the doings of an unlicensed practitioner is brought before them? The College is much to be blamed for not protecting more carefully the rights of their licentiates; and for not preserving the people from the designs of any ignorant, unprincipled, rapacious fellow, who may choose to dub himself Doctor. As an instance of their dereliction of duty, we need only point to the fact that an individual calling himself Dr. Tumblety has been allowed to practice undisturbed in the city of Montreal for several months, notwithstanding the existence of the following clause in the Act of Incorporation of the College:—"And be it enacted, That from and after the passing of this Act no person shall practice Physic, or Surgery, or Midwifery in Lower Canada, unless he be a person duly licensed so to practice, either before or after the passing of this Act, under a penalty of Five Pounds currency, for each day on which any person shall so practice, contrary to the provisions of this Act: and such penalty shall be recoverable on the oath of any two credible witnesses, before any Justice of the Peace for the district in which the offence shall have been committed, and on default of the payment of such penalty on conviction, the offender may be committed to the common gaol of the district until the same be paid." The faithful enforcement of the law, as laid down in the above clause, would soon eradicate quackery in Lower Canada; for no unlicensed practitioner could possibly afford, notwithstanding his great gains, to pay *Five Pounds currency daily* for the privilege of humbugging a gullible public. Let, then, the College of Physicians and Surgeons see to it, that every one practising in the Lower Province without a license be immediately prosecuted and obliged to pay the penalty to which they have made themselves liable. It is the clear and manifest duty of the Governors and office-bearers of the College to do so, and their licentiates demand and expect prompt action in the matter.

Examination of Candidates for License in C. W.—At a Meeting of the Medical Practitioners in the city of Toronto, C.W., held during the early part of the past month, for the purpose of receiving the report of a Committee appointed to draft a Memorial to the Legislature, praying for the appointment of one Examining Board for the Upper Province;

The Hon. Dr. Widmer having taken the chair,

Dr. Hodder presented the Memorial reported by the Committee; which having been read, it was moved by Dr. Hodder, seconded by Dr. Wright, that it be adopted.

The Committee appointed to prepare a draft of a Memorial to His Excellency the Governor General in Council, and the two Branches of the Legislature, praying for the passage of an Act for the establishment of a Central Board of Examiners, beg leave to report as follows:

The Petition of the Provincial Board of Examiners for Canada West, humbly sheweth:

That, since the passage of the Act regulating the practice of the Medical Profession in Canada West, various institutions have come into existence, which possess the power, through the provisions of the said Acts, of conferring by their degrees the license to practice Medicine, Surgery, and Midwifery in Canada West.

That the system of allowing different Colleges to grant *all practicandum* degrees without any uniformity in the curriculum of studies, and in the standard of qualification, has been found in other countries to operate most injuriously, and is now leading to strenuous efforts in order to procure the same modification thereof as appears to your memoralists to be desireable.

That some system which would ensure a high and uniform standard and qualification in Medical Practitioners in this portion of the Province would be received with much satisfaction by your memorialists, and, they believe, by the medical profession generally.

That by the second clause of the 8th Geo. IV. ch. 3, it is provided that certain persons shall be entitled to obtain the Provincial license to practise the various branches of the Medical Science without undergoing any examination whatever in this Province; whereas no such privilege is accorded to the legal profession, which restriction has contributed, no doubt, to its high and honourable *status*.

That your petitioners believe that placing the medical profession on the same footing as the legal, would have the effect of raising the standard of medical attainments, and encourage that unanimity of sentiment and action so necessary to the advancement of medical science.

Your memorialists therefore pray, That your honourable house will take such steps as may be necessary to obtain the passage of an Act repealing the before-mentioned second clause of the 8th Geo. IV., chap. 3, and every other act or acts that may be inconsistent with the prayer of your memorialists, and providing for the establishment of one examining and licensing body; before which all candidates desirous of practising medicine, surgery, and midwifery in Canada West be required to present themselves for examination, and a license from which shall be the only authority by which any person may practise medicine, surgery, and midwifery, or either of them, in Canada West.

And your petitioners, as in duty bound, will ever pray, &c.

(Signed,) Ed. M. Hodder, Chairman.
Jas. Richardson, Secretary.

After much discussion, in which the Hon. Dr. Rolph bore a prominent part, as the great opponent, it was moved by Dr. Richardson, seconded by Dr. Small:

"That the Committee appointed to draft the Memorial just adopted be an Executive Committee to take charge of the Memorial; and that a copy of the Memorial adopted be sent by circular to every member of the profession in Canada West; and that the Committee take any other steps which may be necessary to ensure the passage of the measure."

The chairman having called for the yeas, all stood up except Dr. Rolph, and the resolution was declared carried.

The meeting then adjourned.

As medical education is at present degraded in Canada West, some such action was imperatively demanded. The preservation of the profession from further lowering may be yet obtained through its means. As matters now are, any combination of a few—and the number has been usually less than six, and, in one instance, reduced to about half this complement—who may be stirred up by the ambition to teach or ape the master, resolve themselves into a school, or, more grandiloquently, a college, and, to gratify their personal vanity, issue most unworthy inducements, as small fees, short terms, and little qualifications, to bring together a class of students with whom these inducements are irresistible. Were the injury to cease here, it would be bad enough, but it extends further. These small concerns get affiliated or incorporated with some University desirous of encumbering its previous dull machinery; and with the *prestige* of this connexion, their powers now become absolutely destructive. Receiving the ability to grant degrees,—and these conferring upon their holder the right of license, being *ad practicandum*,—and desirous that they should be considered well patronized, they withhold not these privileges from any who have the hardihood to ask or seek them. The result of giving being a mutual benefit to teacher and student,—in time bringing the teacher another student and making the student equal to the teacher. No surprise need then be had that the *one man* who, ironically, is universal in attainments and extensive in performance, should have stood alone in opposition to a movement intended to remedy this deplorable depreciation of the mode by which medical tuition is imparted and continued in the higher seats of learning, as those of the Old Country or of the Eastern section of the Province. Every school should be placed on equal terms with regard to its curriculum, and no student should be suffered to receive a license who has not completed a fixed term of at least *four* years' study, who has not attended for a same number of sessions, and followed during them two or more full courses on

all the branches essential to constitute by acquisition an accomplished and educated physician. As far as the above petition takes cognizance of these intentions or embraces them within its scope, it is entitled to the support and advocacy of every honest and reflective legislator. And seeing the abuse which is made of University honors, if so these can be styled, and the number of sources in Canada West from which they can be so easily obtained, we conceive that the concluding petition in the memorial is justified, and especially demanded in that section of the country. Without it, the present system with all its attendant consequences of ruin must continue, and increase. But in a properly constituted board, of members totally disinterested and impartial, altogether disconnected with any medical school or teaching, and having no personal interest in its exclusive welfare, before whom candidates must prove their capabilities, we consider the public would enjoy a salutary deliverance from imperfectly educated practitioners; and by affording the power for securing this most desirable end, the Legislature would only be true to its trust and responsibility for protecting and advancing the happiness and welfare of the public whom it represents.

Medical Faculty of Victoria College.—At another meeting of the Medical Board in Toronto, the following disclosures were made relative to the Medical department of this Institution, serving strongly to support the propriety of the remarks made in the previous editorial. This example is given as but one of the illustrations which might be brought forward of the fallen state of professional education in the Western Province. The remarks were fearlessly avowed in the presence of the Dean of the Victoria Faculty, who during their delivery occupied the enviable position of Chairman to the meeting. They speak so much for themselves that further comment from us is unnecessary. We extract them from a fuller report in the Globe:—

"Dr. Hodder.—It appeared, from statements made at that Board, that Victoria College had graduated young men who had been very little over two years engaged in the study. He considered that four years was by no means too long a time for a person to acquire a proper knowledge of the profession, and was satisfied that no one could properly qualify himself in two. From what had been stated at that Board on a former occasion, it appeared that the Hon. the Dean of the Medical Faculty of Victoria College was the chief examiner of those desirous of graduating—that the examination was anything but a fair and open one—in short, that it was a complete hole-and-corner affair. Dr. Rolph and another gentleman had quietly gone into a room with his intending

graduates, and, after a private hole-and-corner examination, given them their degrees. He (Dr. H.) was satisfied that all the respectable practitioners throughout the country would approve of the action the Board proposed to take with regard to the examining candidates and granting licenses, and that it was the only safe course that could be adopted.

Dr. Richardson—In the United States the present deplorable condition of the profession was chiefly owing to the fact that the students were graduated and licensed to practice medicine upon similar conditions to students of the Medical Department of Victoria College; and the appointment of a Central Board of Examiners similar to that proposed to be established here was at this very time being demanded there, as the only protection the public could have against the numbers of incompetent practitioners who were annually graduated by the inferior institutions. Such a measure was loudly called for here, for there was no law to prevent Victoria College from graduating students in two years if they thought fit. It had been denied by the Hon. Chairman, who was Dean of the Medical Department of Victoria College, that that institution had graduated students in little more than two years; but such it had been stated to him was the fact, by a gentleman on whose veracity he could rely, and the Dean's denying it was of very little consequence. He had no hesitation in saying that the Medical Department of Victoria College was a sham and a swindle from the beginning. Year after year it had published false statements, intended to mislead. After begging of every medical man in the city, and many in the country, to accept a professorship, and after all refused to have anything to do with the Hon. Dean of the Institution over which he presided, that gentleman published, one year, the name of a gentleman who had never had anything to do with Victoria College as a Professor, when he knew at the time of doing so that that gentleman was then in New Zealand! The name of Dr. Brouse, too, had been published, when the fact was that that gentleman had declined the offer of a professorship in the College, and had never entered it.

Hon. Dr. Rolph had not offered a chair to Dr. Brouse.

Dr. Wright.—That is perfectly true. Dr. Rolph employed others to make the offer.

Dr. Richardson.—Yes, I believe Dr. Wright. That is the way in which Dr. Rolph acts; his old trick. Another gentleman's name had been published as professor of surgery, when the fact was that that gentleman lived some miles in the country, and had not given a single lecture during the session. One gentleman who had been so unfortunate as to accept a chair under the Hon. Dean, had been pelted out of the

school with candles by the students; and one of the present staff of professors, who was himself a student of Victoria College, last year, had stated that he was ashamed of the degree conferred upon him by Victoria College; but as it gave him the license to practice, he did not care a d——n. And so it was with most of those holding degrees in medicine from Victoria College. They were ashamed of the institution; but had the license to practice, and that was all they cared for. He could tell those young gentlemen that they would find their level when they went forth to practice, and that the mere fact of their having a license would not avail them much. They required knowledge; and the little they obtained during two winters at the Medical Department of Victoria College would not by any means fit them for the duties of the medical profession.

Dr. Wright knew that the statement of the chairman (Hon. Dr. Rolph) with respect to Victoria College having conferred a degree, and consequently a license to practice, on Dr. Poole before he had passed the proper time in study, on the importunity of Dr. Aikins, was perfectly gratuitous. [Dr. Rolph could prove it.] Dr. W. was quite satisfied that the hon. gentleman was quite competent to prove any statement he might make. But he (Dr. W.) was aware at the time that the statement was made, that it was, like most of that gentleman's assertions, not rue. It was not always easy to catch the hon. gentleman, but fortunately that Board had positive proof before them that Dr. Rolph's statement and base insinuations in this instance were altogether false. The books of that Board showed that Dr. Poole had produced the proper evidence to show that he had been upwards of three years engaged in the study of medicine prior to his presenting himself at that Board as a candidate for license; that he was examined by Dr. Hodder and others then present, passed the necessary examination, and obtained his license on the 8th July, 1854, before Victoria College had a medical department, and nearly two years before the degree was conferred upon him. He appealed to Dr. Hodder to say whether his statement was correct. [Dr. H.—Certainly.] This showed the reliance to be placed in anything from the Honourable the Chairman and Dean of the Medical Faculty of Victoria College."

Death from Chloroform.—A painful feeling was lately occasioned in Toronto by the melancholy death of Mr. John McChesney. This gentleman called at the operating room of Dr. French, surgeon dentist, to have six teeth extracted, but appeared reluctant to submit to the

operation unless under the influence of chloroform. Dr. Richardson was accordingly sent for to administer it, which he did, first, however, explaining to Mr. McChesney that he took the anasthetic solely at his own risk. After a short inhalation, the gums were lanced, and, the chloroform having been again applied, the teeth were removed. But as soon as this was done, Mr. McChesney was seen to alter in appearance; his eyes became fixed, the jaws fell, respiration ceased, and the heart's action stopped. Every possible attempt was made to restore animation, but to no purpose: Mr. McChesney was dead. Fuller details respecting his death will be found in the evidence below, taken at the inquest held the same evening, 1st February.

Dr. Tobias French, in reply to the foreman of the jury, described the manner in which Dr. Richardson administered the chloroform, by placing it in a sponge and applying it to the nostrils of the patient. After a short time, the patient began to laugh; asked him the cause, and he said he could not help it, seeing those fellows (meaning us) laughing at him. It was then thought he was sufficiently insensible to commence the operation of lancing the gums. He winced under the lancing; I asked him to lean forward and spit into the bowl, which he did. He did not speak, but groaned several times. I remarked to the Doctor, that he was getting on well. After a few inhalations, the Doctor said it was better to draw the teeth, and my brother did so. He extracted six. The deceased seemed conscious of pain, and struggled in the drawing of the last tooth, and appeared like a person not fully under the influence. I asked him to lean over the bowl, which I held before him, and he spat into it. I then observed a change pass over his countenance, such as to startle me; and I remarked there was something wrong. Dr. Richardson opened the window, and ordered me to tap the patient on the right side, so that he would not swallow any blood. I next remarked a great change, and exclaimed that he was gone. The deceased at this time looked cadaverous, and his jaw fell. We then took him and laid him on the floor, placed a pillow under his head, and made an application of ammonia; also applied cold water to his head, and had the body briskly rubbed. Dr. Richardson called for assistance, and Drs. Russell, Nicholl, Beaumont, and Haswell were brought in. A galvanic battery was also put in operation; but all was of no avail.

Dr. Richardson was examined, and deposed that every precaution was taken in the case of Mr. McChesney, and quoted instances of a similar nature which had taken place in England.

Dr. Haswell.—When I went to Dr. French's, I found the deceased lying on the floor. Respiration had then ceased. Dr. Richardson was

using efforts to restore animation. I assisted, in conjunction with Drs. Beaumont and Nicholl, for about an hour.

At this stage of the proceedings, it was intimated by the jury that abundant medical testimony had been adduced, and no further evidence was taken.

After a short deliberation, the jury found the following verdict: "That the deceased came to his death in Dr. French's operating room, while under the influence of chloroform, which he had voluntarily inhaled for the purpose of getting some teeth extracted; and that more than ordinary care was used in the administration of the chloroform."

CORRESPONDENCE.

A STUDENT'S LETTERS.

No. IV.

It is my intention to state briefly what qualifications are required for the L. R. C. S. E., as probably some of the students at Montreal may think of coming over to Edinburgh for the diploma. There are not so many courses of lectures required for the degree of the College of Surgeons here as for the M.D. at McGill University; but there are some *special classes* required for qualification. The candidate must have been engaged for 27 months at least in attendance on lectures, in which three winter courses must be included, or four winters of six and one summer of three months.

The classes required are, of Anatomy, Practical Anatomy, and Practice of Surgery, two courses of six months each. Chemistry, Materia Medica, Institutes of Medicine, and Practice of Medicine, one course of six months. Practical Chemistry, Midwifery, Medical Jurisprudence, and Botany, one course of three months. Clinical Medicine, and Clinical Surgery, one course of six, or two of three months each.

Besides these lectures, he must have attended at least six cases of labour, and produce a certificate to that effect; also a course of instruction in Practical Pharmacy with a Surgeon, or Apothecary, or Chemist, or Druggist, public hospital or dispensary, and produce evidence that he has been engaged in compounding and dispensing medicines for six months; or in place of these qualifications, if a certificate be produced of having been for two years private pupil or apprentice to any licensed practitioner, this will be sufficient. There are twenty-four months' attendance on a public General Hospital required likewise, or twenty-one months of hospital, and six months of practice at a dispensary. Extra courses in Natural History, Pathological Anatomy, &c. will be of great

benefit if the candidate should be wanting in some of the minor requirements. There is likewise an examination in Latin and Natural Philosophy, which is required from all with very few exceptions. I did not find the examination in Latin very difficult, but it is as well to look over a little of Cicero "De Natura Deorum," Second Book, or his oration "De Senectute." As you are likewise to get a quotation from some of them, you get likewise two other pieces from some of the classical or those medical authors who wrote in Latin. If you do one piece satisfactorily it is sufficient. The other portion of the examination is very elementary. The days for the final examination are the first and third Tuesdays of every month. I may state, *en passant*, that the candidate for the diploma does not require to attend any lectures in Edinburgh, if he have the before-mentioned qualification. I hope I have not been too prolix in the preceding remarks. I think I have given most of the requirements.

NOW FOR SURGERY.

Mr. Syme has recently attempted to astonish the world by a new operation, but unluckily it turned out a failure. The operation was the removal of the tongue by dividing the symphysis menti, and then making room for the removal of the tongue by pushing aside the divided ends of the bone. The operation was beautifully performed, and the patient did well for three or four days, but he gradually became very depressed and died. Post mortem revealed collections of pus in the joints, liver, and lungs. The Professor said in his Clinical Lecture that had he a fitting subject he would again perform the same operation, as he thinks it was not a fair trial, and that pyæmia may result from almost any operation. Mr. Syme never performs resection of the knee joint; and I have seen many amputations of the thigh for scrofulous disease of that joint, which I am certain would have been resected had they been in London under Mr. Ferguson. I think that this latter operation is not performed here as often as it should be, and that many patients might have had a useful though stiff limb who now go about on crutches.

The operation as performed by Mr. Ferguson I think fulfils every indication. It can not only be easily and speedily executed with little loss of blood (sometimes not more than one or two table-spoonfuls), but also with a happy result as regards the patient. I have seen cases brought into the operating theatre, in which the patient was able to walk about with very little inconvenience; and others, six weeks after having the joint removed, were able to get out of bed and go round the wards, and, in the place of their cachectic, death-like appearance, had grown healthy and fat, even before the limb was yet perfectly cured.

Another operation almost peculiar to Mr. Syme is the removal of the

whole or part of the maxilla. This he performs with neatness and despatch, and is very successful generally in the result.

In this part of the medical world Dr. Bennett has been upsetting all the old theories regarding the treatment of inflammation. He says that bloodletting, except in a very few cases, is positively injurious, or at most of but little avail. The arguments on both sides of the question have been carried on here for some time past with great warmth.

Dr. Bennett has, I may say, no supporters, and hence has all the battle to fight himself. He has been very bitter in his invective against calomel, and in fact the whole antiphlogistic treatment. He says the system requires to be supported, rather than depressed, in inflammation. I was a little astonished, when first going through the wards with the Professor, to find that the routine treatment was "*beefsteak and cod-liver oil*," and he is undoubtedly very successful; but I think the main cause of this is due to the class of patients he meets with, as they are half-starved before coming into hospital, and when the system is thus invigorated disease leaves them. But I fear it would be otherwise if he had to deal with a lot of strong, plethoric agricultural laborers.

He and Dr. Laycock disagree very much about the different diathesis; the latter gentleman holding that if we can find out the peculiar diathesis of the patient we have half the work done, and the former denying even the existence of such a condition. From what I have heard on both sides, I think that each is wrong in being too exclusive, and that by following the middle course we should be nearer the truth.

Dr. Gardiner has been recently trying the hypophoshide of lime and soda in phthisis. This remedy though said to be so successful in Paris, has been the reverse here. In five cases in which they were tried, one case only appeared to derive any advantage,—or I would rather say, suffer no ill consequences. In the four others decided exacerbation of the symptoms came on after their use, which in three cases ceased when they were discontinued. The remaining case never rallied thoroughly, but gradually sank. This might not have been, however, the result of the remedy. The phosphoric acid drink, a great favourite with Dr. Gardiner, appears to act very beneficially as a palliative. It contains phosphoric acid flavoured with syrupus aurantii, but not made too sweet. By its use the profuse sweating thirst and febrile symptoms of phthisis have been greatly alleviated, and the medicine is very agreeable to the patient.

In concluding, I may state that I have not yet seen any snow in Edinburgh, and the weather is fully as mild at present as it was at the commencement of the session.

Edinburgh, 4th January, 1858.

[We have received the following letter from a correspondent residing in the Eastern Townships. The charges which he brings forward against three Governors, as aiders and abettors of those who practice without a license, to the serious detriment and loss of the educated and licensed practitioner, are most grave, and should be made the subject of enquiry at the next meeting of the College of Physicians and Surgeons of Canada East. If the parties are found to be guilty, immediate expulsion from the College should be the penalty of their misconduct.]

To the Editors of the Medical Chronicle :

Having noticed, with particular pleasure and satisfaction, that you have ever felt a lively interest in the advancement and maintenance of a high standard in medicine in our Province, and exhibited an earnest desire to expose everything relative to empiricism without the profession, and unfairness on the part of the regular practitioner, we have been led to communicate a few words to you upon the state of affairs in a certain locality in the Eastern Townships.

It would be quite out of place to recapitulate the early history and career of our fraternity, and the small remuneration hitherto attendant upon their labours, and the uncertainty with which even that, in some cases, has been obtained in this section. It would be equally out of place to enumerate the scores of assumed medical men who, like a pestilence, have spread their false and pernicious doctrines in times past. It is sufficient for our purpose to speak of the present. We shall, however, go back to the year 1847, when, if our memory serves us rightly, there was an act passed by our Legislature incorporating the profession into a body, with rights and privileges which are well known to all, and which, among other things, allowed to different parts of the Province their share of representatives at their sessions, and a voice in the affairs pertaining to the regulating and conferring of licenses, as well as overlooking the best interests of the profession generally. Out of our ranks at that time the very generous number of three was chosen from the territory now known as the district of Bedford ; and it is worthy of note that this number has ever since been elected from the same district. Now it is quite natural to suppose that, in the space of ten or eleven years, something would have been done to suppress the offences which have been practiced upon society, and particularly against the medical profession, with such a formidable guard as all this watching over us ; but in its place we find quacks running at loose-ends over the whole country, and the three Governors themselves quietly encouraging it in every instance. Nor is this the whole truth. It is a notorious fact that

these three Governors have each an illegitimate practitioner in their employment, to whom they are giving their daily bread for their services as hired assistants in their practice, and not as students.

We could coolly tolerate such an unhappy state of affairs, did not our three sentinels take these men into their houses, and protect them in serving what they call their masters; but we do think the time has now arrived when we should expect that every one who has sought and obtained an honorable admission to the profession would discountenance, to the last moment, every individual who savors in the least degree of quackery and humbug.

We have been frequently asked by our friends why it was that the Townships were not better represented at McGill College. Other parts of this Province, with perhaps not greater resources, furnish a good number of young men to adorn its halls, while a comparatively few from this quarter have sought medical instruction at the above-named institution. We have now simply to say, that as long as our young men can with far less expenditure of time, money, and mental effort, obtain the degree of M. D. from our neighbours across the lines, and receive upon their return home the sanction and protection, and even *employment*, of those who are in authority, it is only a rare exception that one will ever approach our own Colleges.

Surely the time may now be said to be safely past when we can any longer plead poverty, or want of facilities at home, as an excuse for seeking an education, whether professional or otherwise, without our limits; for it is well known that there is no place, in America at least, where an equal standard of acquirements is expected of the candidate for honors, or where better opportunities are offered for a thorough medical education, than those of our Province.

We have in these few words endeavoured, though hastily and briefly, to give you some intimations in respect to the state of the profession here. We confidently hope that the College of Physicians and Surgeons will put down those who are now practising empiricism and unfairness; and that before long room will be made for more of our orthodox and acknowledged medical men, and our own Colleges better patronized by our own people.

Truly yours,

A Veritable M. D.

District of Bedford, Jan. 3, 1858.

MEDICAL APPOINTMENTS.

SECRETARY'S OFFICE,
Toronto, January 9, 1858.

To be Surgeon to the Volunteer Force of Montreal:—Surgeon Alfred Nelson, M. D., of the Volunteer Cavalry.

Military District Number Nine, Lower Canada.

First Troop of Volunteer Cavalry, Montreal.—To be Surgeon: Benjamin Moreg, Esq.

January 23, 1858.

His Excellency the Governor General has been pleased to make the following appointments, viz.:—

Gabriel Balfour, M. D., and Henry Lemmon, Esquires, to be Associate Coroners for the County of Brant.

William Jackson, and Nathan Bicknell, M. D., Esquires, to be Associate Coroners for the United Counties of Frontenac, Lennox and Addington.

MEDICAL NEWS.

When Dr. Spurzheim had finished an examination of the Ettrick Shepherd's cranium, the latter summarily disposed of the "science": "My dear fellow, if a few knots and swells make a skull of genius, I've seen many a saft chiel get a swapping organization in five minutes at Selkirk tryst."—At a late examination for the degree of M. B., of the University of London, a candidate who was known to profess and practise homœpathy, was rejected.—Geo. R. Gliddon, Esq., formerly United States Consul at Cairo, Egypt, and distinguished for his contributions to antiquarian science, died at Panama, on the 11th Nov. Mr. Gliddon was the principal contributor to "Types of Mankind," and "Indigenous Races of Men," and a prominent advocate of the views of the new school of ethnology.—It is reported that the tomb of Hippocrates has recently been discovered, near Larissas in Thessalia. But as in ancient Greece the name of Hippocrates was something like that of Smith at the present day, strong doubts may be entertained whether they have really found the grave of the old sage of Cos.—M. Geoffrey, the chief physician of the hospital for the insane at Veurleuse, has been assasinated by an epileptic patient.—It has just been decided by the Director-General of the Paris hospitals, upon the advice of the physicians and surgeons of these institutions, that every patient admitted into these establishments shall be either vaccinated or re-vaccinated. The Director has applied to the academy of medicine to learn the best means of carrying these measures into execution.

THE

MEDICAL CHRONICLE.

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ORIGINAL COMMUNICATIONS.

ARTICLE XXVII.—*Mental Depression: a Cause of Death.* By WM. H. HINGSTON, M.D., L.R.C.S., Edin., &c. &c.

If "a low sensual reader shall, from mere love of the animal life, find himself drawn in, surprised and betrayed into, some curiosity concerning the intellectual," how much more should the mind of the physician be impressed with the importance of earnestly considering that subtle and obscure link which binds the nervous system (of which he knows so little) with the grosser body, (of which he knows much more.) He, above all others, has daily opportunities afforded him of studying the ever-varying peculiarities of those with whom he associates, and on whom he is necessarily most dependent. "It seems to me," says Sir Benjamin Brodie, "that medical practitioners, if they knew how to avail themselves of it, have an advantage over most other professions; partly because they have to deal with every order in society, from the high-born patrician and prosperous millionaire down to the poor man in the hospital, seeing them as they really are, under those circumstances of trial, which, more than anything else, level all artificial distinctions; but, more especially, because they are necessarily led to contemplate the mind, not simply in the abstract, as is the case with the mere metaphysician, but in connection with the physical structure with which it is associated."

It being the duty of the physician to study the influence of the mind upon the body, and of the body upon the mind,—not merely as an abstract study, but in order often to trace effects to their causes,—it appears

to me strange that so little on the subject is to be met with in the pages of medical literature. To fill up the hiatus is not my intention—vanity does not lead me quite so far; but my attention having been forcibly and painfully directed to one of the most depressing of the mental emotions—fear—operating through a weak mind upon a weakened body, I am induced to lay before the readers of the *Journal* the thoughts which were suggested at the time, as well as the details of the case which gave them birth.

The paleness, agitation, coldness, palpitation, syncope,—depressing effects of *sudden* fear, making the strong man weak, the weak powerless, —are familiar to most persons. The feverishness, headache, sleeplessness*; the parched tongue, loss of appetite, impaired digestion, and that melancholy which "makes the hearts ache sad and heavy,"—though not so easily traced to their exciting cause, follow, not less certainly, the *continued* operation of this depressant. There is no misery, nor rack, nor torture, greater than this, and, sometimes, no greater danger. Of all forms of fear, the fear of death seems to be most powerful. It matters little whether that fear arise from real danger, or from its mere fancied existence. "If it be told them," (the Chinese), says Riccius, "they shall be sick on such a day, when that day comes they will surely be sick, and will be so terribly afflicted that sometimes they die upon it." Burton and others furnish us with many such instances.

The fear of death —*morte pejor*—saps the current of life at its very source, by impairing assimilation and arresting secretion. The bodily weakness thereby induced, reacting upon the disordered mind, and again reacted upon, exposes the frail frame-work to those noxious influences, those accidents and vicissitudes of life, while unequal to a struggle with them. This is but a faint picture of the case of Mrs. G., whom I saw for the first time in September last. Mrs. G.,—a pale anæmic creature, with hollow sunken eyes, and a look of anxiety or dread impossible to describe,—is in labor with a seven months' child. I find her sitting upon a sofa, looking pale and downcast. The pains are frequent, and accompanied with slight oozing of blood. I desire her to be carried to bed, but her reluctance is extreme. I insist upon it; and she replies, slowly and sorrowfully, "Well, Doctor, I suppose I must, but I shall never rise from it again." Regarding this as one of the prophecies so often heard and so little heeded at the bed side of parturient women,—

* I am not prepared to state whether the sleeplessness be the cause or result of want of food. It is not unreasonable, however, to suppose with Dr. George Johnson, that the two conditions exert a mutual influence upon each other.

although her nurse told me that she was labouring under the fear of being with child of a male, she having been told that she would die if it were a boy,—I proceed, without paying much attention to her forebodings, to make the usual examination. I found the *os* dilated to about the size of a shilling, and the placenta presenting. The pale, sunken cheek, and the weak pulse, rather than the abnormal presentation, or the trifling amount of oozing blood, made me anxiously and impatiently await further dilation. This, as is usual in such cases, was rapid; in a few minutes it was fully dilated; and, as the hemorrhage was now considerable, I introduced my hand, turned and delivered by the feet with facility, the placenta quickly following. The sex of the child (a male) was carefully concealed from my patient, and even from those present; my excuse for not showing it being that I did not deem it prudent to allow patients to look upon dead-born children. Matters went on favorably; the uterus contracted firmly; the patient's pulse became stronger and fuller; her dread and fear of dying seemed to have vanished; color returned to her cheeks; and she herself laughed at the ridiculous fear under which she had labored from the commencement of her pregnancy. Yet, ever and anon, would distrustingly inquire after the *sex* of the child, adding, "So strong a hold had it taken of me that I feel the announcement of the birth of a male child would have terminated my existence. I may thank the Lord that the birth is premature, for I could not have supported the melancholy of the past seven months, two months longer." I took my departure at 10½ P. M., about an hour after delivery.

At 12½ P. M., I was summoned suddenly to her bed side. Her husband who came for me said "he was sorry to disturb me to quiet the stupid fancies of his wife,—but she had so urgently entreated him—saying she was dying, and that if he refused to bring the doctor, he, her husband, would ever regret disregarding his wife's last request." Doctor, he added, "she is terribly earnest about it or I would not have come." A vehicle was at the door and I hastened to the house. As I crossed the threshold I saw her gasp, but ere I reached the bed, she was dead. Brandy was poured into her mouth, but it trickled over her lips again. I examined the uterus, but the contractions were firm. The nurse (an intelligent woman) related to me the following: "She continued well for some time after you left—and I thought that all was going on well when Mrs. —— said jokingly to her, "well, you see you have not had so much difficulty with this boy—(exhibiting it) as you had with the last one." Lord, Sir, had you seen her countenance it would have frightened you. She threw herself back upon the pillow and called her husband to go for you. He would not have budged but

she said earnestly to him, "Husband, dear, do not refuse your poor wife's last request," and off he started. Several times while he was away she said she was just gone—and when I heard the rattle of the carriage wheels, I told her to keep up her courage, but she replied, "I hear it too, but 'tis too late and my husband will be so sorry." That was while you were just at the door—and I did not know that she was dead till you told me."

The reader in glancing over the details of this case, may be disposed to exclaim "Pooh! nothing but internal hemorrhage!" but 'twas no such thing, as I shall soon attempt to show. The severe mental depression under which the patient labored previous to delivery, was such as I had never before witnessed, and alarmed me much. What else was the cause of death? Hemorrhage *ante partem*? This was so trifling and so soon ended that it could not possibly have produced death. Shock to the nervous system from turning? This, though much to have been dreaded in her weak state, was unusually slight. There was no shock perceptible at the time. Hemorrhage *post partem*? No! for that was far below the usual amount. Internal Hemorrhage? It could not have been for the uterus was as firmly contracted on my return, as it had been at my departure, two hours before. That all these, however, except the latter, contributed something to the fatal result, I do not wish to deny; anything, in fact, calculated to reduce vitality already low, would do so; but to severe mental depression, long continued—rendering the patient weak, nervous and anæmic, and to the suddenly repeated operation of the powerful depression is to be attributed this death from fear, or, what might be termed to suit Pathologists, "Death from Syncope."

ART. XXVIII.—*Cases of Mucous Hemorrhage.* By M. F. Colby, A. M., M.D.

There have been two important cases of mucous hemorrhage here within a short period. They throw light on this disease.

Dr. Ayers relates two cases of mælena or hemorrhage from the bowels in which the liver and spleen had a blanched appearance, but Dr. Graham thinks that these two cases are not sufficient to justify a pathology of the mucous hemorrhage.

A girl aged 16, under the care of Dr. Meigs, was attacked with hemorrhage alternating from the vagina and nostrils. It was mostly from the latter. There was throbbing, heat, &c., about the nostrils, and all

the blood was pumped away. P. M.—Liver and spleen hypertrophied and blanched externally—Liver 8 lbs., Spleen 3½ lbs.

Mrs. H. came to me about four months ago and wished to examine a tumor, in reference to an operation. A large tumor existed on the left side, extending from the ribs to the pubis, I told her I could not decide whether it was Ovarian unless I knew where it commenced, and by a further examination which my health would not permit my going into. Three or four weeks since she had a tooth extracted in the morning—it bled through the day but was stopped at night. The same night she commenced bleeding from the nostrils and continued to bleed till all the blood was pumped away. P. M.—Liver and spleen hypertrophied and blanched; Liver 8½ lbs, Spleen 4 lbs. The enlarged organs had pressed the transverse colon down below the spinous processes of the ilium. Two portions taken from the intestines had the same blanched appearance in the mucous coat.

I had a portion of liver spleen, intestine and heart preserved for microscopic examination, Dr. R. of Derby, has them.

Now according to my view of the functions of the digestive tube the oppressed portal veins were not relieved by local rupture by a portion of the mucous membrane possessing all the sensibility of animal life, and that the hemorrhagic action was an active pumping state of the part from which the blood came.

In the last case I had an opportunity of examining the meso-rectum, and satisfied myself where the lateral power exists which aids in opening the upper part of the rectum and performing an office similar to the stylo-pharyngic muscles. I knew that such an action existed, but I did not know what the power was. If you will take the trouble to look into the subject you will find that portion of the internal oblique muscle has an independant action, and does not act in concert with the other portion. This arises from the outer part of Poupart's ligament and passes downward—a part descends with the spermatic cord, and this acts in concert with the Levator Ani in raising the testicle at the same time the rectum is raised, the other portion of the oblique acts at the same time in opening the upper part of the rectum to receive the fecal mass. In this action the meso-rectum acts as a ligament unless fibres of the internal oblique pass to the rectum between the layers of the meso-rectum. I at first thought this the case in the examination of Mrs. H. There was a layer of what I supposed muscular fibres an inch or more broad passing in lines toward the concavity of the ileum, but on touching them they were disorganized, and I could not tell whether they were blood vessels or muscular fibres.

You will not regret the time you devote to this subject, and ye. will find that the aphoristic view of the functions of the descending bowel which you published in your August number, is positively correct.

I think since that time that the ileo-colic valve has been opened in this vicinity more than fifty times and with uniform success.

Ileus of ten or twelve days standing has been stopped at once. The abdominal fullness in peritoneal inflammation has been repressed at once. *Spinal palsy* of the lower limbs, cerebral disease where there was a loss of language and intolerance of light have been cured, and are nearly well. The one with spinal palsy—bed ridden for a year, is walking about. But I trouble you,—I have my lectures nearly completed with plates illustrating the subject, and I now think of going to Portland in the Spring. The lectures will be comprized in 8 or 10. I wished to go where my views may be tested by close scrutiny. I should have gone in the fall to Montreal, but I could not bear the cold, and besides I cannot speak the French language.*

ARTICLE XXIX.—*Breech Presentation, with Hydrocephalus.* By E. W. Gustin, M.D., Fingal, Elgin County, C. W.

In May last, I was called to attend a case of midwifery. On entering the house, I found the woman in strong labour, with the breech presenting and already well down in the pelvis, with the back of the child directed anteriorly. The membranes were tough, and appeared externally. I ruptured them; after which the pains gradually lessened, and soon altogether ceased. Ergot was administered, and the pains quickly became severe and regular. For some time now the labour was allowed to proceed without interference. It was with the greatest difficulty that the shoulders were born; after which the pains, although powerful, failed completely to further the child. The funis ceased to pulsate; the child died. Satisfied that instrumental assistance was required, I sent for a consulting physician. The abdomen of the woman had lessened but little in size, and I could, by grasping it, distinctly feel the enlarged head, fully twice the normal size. The woman's strength began to fail, and I determined upon effecting her delivery without delay. The second physician now arrived.

The head, owing to its size, was unable to enter the pelvis; and the shoulders having been born, the neck of the child was therefore put

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* Extracted from a letter to the Editors.

greatly upon the stretch, and fitted closely behind the symphysis pubis, rendering it impracticable to reach the head of the child. The only part within reach was the submaxillary space—the lower jaw having passed the promitory of the sacrum; consequently, craniotomy was rendered difficult as well as dangerous. However, no time could be lost; I therefore proceeded to operate. (I might here state that the usual changes in position of the child during the birth of the body were scarcely noticeable.) I introduced my left index finger, and with it guarded the introduction of the perforator. I now pierced the submaxillary space, directing the instrument behind the palate, through the foramen lacerum anterius into the cranium. The introduction of the instrument was difficult, owing to the distance it had to traverse before reaching the brain. However, I cautiously introduced it; and, having once entered the cranium, a gush of water escaped. After breaking the brain down as well as possible, I withdrew the instrument, which was followed by a large quantity of water and brain. The bones of the head instantly collapsed, and a few pains completed the labour. The woman recovered fully better than after her previous confinements.

Novel Treatment of a Footling Case, by A SQUAW, in Oneida Town, C. W.—The midwife, finding it impossible to extract the head, after the birth of the body, thought she would make sure of the latter, and consequently severed it from the head with a knife. Twelve hours after the operation I was called, and removed the head.—E. W. G.

REVIEW.

ART. XXIV.—*Transactions of the American Medical Association. Instituted* 1847. Vol. X. 1857. pp. 676. Philadelphia: Printed for the Association. Collins, Printer.

The following is the table of contents of the Tenth volume of the Transactions of the American Medical Association:—Minutes of the Tenth Annual Meeting—Report of the Committee of Publication—Report of the Treasurer—Address of Zina Pitcher, President of the Association—Report on the Medical Topography and Epidemics of Maryland, —Report on Infant Mortality in large Cities; the sources of its increase and means for its diminution. By Dr. Meredith Reese, M.D., L.L.D., &c., of New York.—Report on the Medico-Legal Duties of Coroners.

By Alex. S. Semmes, M.D.—Report upon the Topography and Epidemic Diseases of the State of Georgia. By John F. Posey, M.D., of Savannah. —Report on the use of Cinchona in Malarious Diseases. By F. Hinkle, M.D.—Report on the blending and conversion of Types in Fever. By C. S. Pease, M.D., of Janesville, Wis.—Report on a new principle of Diagnosis in Dislocations of the Shoulder Joint. By L. A. Dugas, M.D.,—Report on the Fauna and Medical Topography of Washington Territory. By Geo. Surkley, M.D., U.S.A.—Report on the Medicinal Flora of Washington Territory. By J. G. Cooper, M.D.,—Report on Deformities after Fractures. By Frank Hastings Hamilton, M.D.— Partial Report on the Nervous System in Febrile Diseases. By Henry F. Campbell, M.D., of Georgia. Prize Essays—The Excito-Secretary System of Nerves, its relations to Physiology and Pathology. By Henry Frazer Campbell, M.D.—Experimental Researches relative to the Nutritive value and Physiological Effects of Albumen Starch, and Gum, when singly and exclusively used as food. By William A. Hammond, M.D., U.S.A.—Plan of Organization of the American Medical Association.— Code of Ethics of the American Medical Association.—Officers and Permanent members.

Dr. Reese's very interesting report shews a rate of infant mortality in the large cities of the United States, more particularly New York, that is positively frightful. Nearly one-half of the whole number of deaths, is made up of those who die before attaining the fifth year of their existence, and the ratio is steadily on the increase. This contrasts singularly with what is found to obtain in the cities of Europe, the infant mortality in the latter, being decidedly on the decrease. "Of the fearful increase in New York," says Dr. Reese, "regarding this as a type of other cities, we have the testimony of the same statistical table. In the year 1853, the deaths under 5 years numbered 12,963, while in 1843 only 4588 such deaths occurred, showing the appalling increase of 8375 within 10 years, which is vastly beyond the proportional increase of the population of the city during the decennial period as shewn by the census. Moreover, this increased infant mortality in 1853, as compared with 1843, is in a ratio very far beyond that of the aggregate of the deaths in persons of all ages, in each of these years respectively, found in the same table. The deaths under 5 years in 1853, were 12,963, while the deaths of all others in the city of every age numbered only 9739; so that the *infant mortality* exceeded all the other interments for that year by 3224! This single fact exhibits in a striking light the importance of the subject of infant mortality in view of its frightful extent, and its alarming increase within 10 years. In 1843 the infant

mortality exceeded the half of the aggregate mortality of the city by only a *few hundred;* but in 1853, the excess over one half the entire number of interments of all ages in the city reaches as many *thousands.*"

This very black account of the loss of life among the infantile community of the city of New York, applies to nearly every large city in the Union, and the blackness is rendered more intense, from the damning fact involved in a single sentence of Dr. Reese's viz:—"still-born and premature birth interments number equal to *one-fifth* of the entire infant mortality of the last half century," 24,164 of such interments have been recorded as having occurred in the city of New York during the last 50 years. The mind of every honest, upright, moral man must recoil with horror from the contemplation of such a record. It is clearly impossible that such a vast proportion of cases of premature births is to be attributed to the operation of causes over which the mother has no direct control, and the revolting truth is forced on us that many American mothers are debasing themselves to a level below that of the brute creation, in seeking to deprive of vitality that living portion of themselves whose little body pulsates in their womb, in the security afforded by nature, waiting for the time ordained from the beginning, that it should emerge into the outer world and become an independant existence. There is no use disguising the fact, that abortion is carried to a fearful extent in the United States; and if the evil is to be remedied, it is not by speaking of it with bated breath and advocating measures of secrecy. Every one who feels an interest in keeping up a healthy state of public morals should make his voice be heard in this matter. Let these inhuman mothers, who, to escape the trouble (read delight—according to the Allwise Ruler's intention) of suckling and rearing the infant of their womb, the blood of their blood and flesh of their flesh—let, we say, these modern Saturnian votaries, be branded as *foul murderesses*, which most assuredly they are—let them be held up, as they ought to be, to the execration of all who have the least respect for virtue; and if, as too often happens in these degenerate days, they succeed in escaping from the hands of the law, let them forever be looked upon with loathing and contempt by the community. We speak not now of these poor unfortunates who, deceived by some of those plausable devils in human shape called seducers, seek, in the madness which a consciousness of their unhappy situation inspires, to hide their shame by the destruction of their infant. Guilty they undoubtedly are, and we would not attempt to justify them. But they are truly deserving of our utmost pity and commisseration. Who can tell the crushing anguish which hourly and momently bears down the heart-broken female as she reflects on the

circumstance of being in a condition which will certainly bring down on her head the wrath of those whom she loves and honours, and render her a byword and a scorn on the lips of those whose friendship she esteems, aye, holds even higher than life itself? Who can estimate the amount of mental suffering which she undergoes ere she applies to the abortionist? Ignorant as we are of these things we cannot tell the force of the temptation. Let us, therefore, judge lightly, giving our affectionate pity while we condemn.

Our feelings then may be touched by the misfortunes of the victim of the seducer, and we may find in the circumstances of her position somewhat in extenuation of her guilt, but what are we to say of the conduct of that mother who, hedged round securely by the "bonds of holy wedlock," conceives, and, crime most foul and unnatural, seeks the aid of the professed abortionist, to procure the murder of the fruits of her conception. Horrible deed! No language can fully express the intense loathing and disgust with which we would regard the perpetrators. It passes our comprehension, how mild, beautiful women, delicately nurtured, well educated, and who have themselves received all the care and attention which the holy undying love of a true mother prompts her to bestow on her offspring, should become transformed into such hideous moral monsters. When we think over these matters, and of the extent to which the crime of abortion prevails among so called respectable women in the United States, we are seized with feelings of profound despondency. Whereunto are we tending in the much boasted light of the nineteenth century? What new depth of degradation will poor human nature plunge into? If the mothers of the present day—those who are to guide, instruct and mould the minds of the children who are to be the men and women of the next generation, exhibit so much laxity of principle and unblushingly perpetrate crime of so deep a die, what a fearful picture will the future present. As an illustration of the prevalence of the criminal practice of causing abortion, and the indifference with which it is viewed by our American neighbours, we will relate what occurred to an esteemed friend and correspondent of ours who lives in Canada close to the line 45°. We are sorry our readers cannot hear it from the lips of our friend, as he is an inimitable story teller. We remember, moreover, the principal facts of the case merely. On a certain day then, this gentleman received a message from the keeper of a hotel to visit his wife. The hotel was in the States, some miles from his residence, and situated near a place much resorted to by sportsmen during the summer months. When he alighted at the door he was met by a servant who shewed him into a room and told him Mr. ——,

(the landlord) would speak to him in a few minutes. After the lapse of a brief period Mr. —— made his appearance, and having closed the door carefully behind him, commenced the conversation by saying that he had heard much of the skill of Dr. ——, and had, consequently sent for him to assist his wife. "Ah," said the doctor, "has she been long in labour. Will I walk up to her room and see her?" "Labour—doctor, she is not in labour—who said she was in labour? The fact is she has gone and got in the family way and will be confined just in our busy season when the house will be full of people, and her services required. Now this wont do, so we've concluded to put a stop to it, and that's why I have sent for you, I want you to help Mrs. —— to get rid of it." Our friend, remarkably astonished, replied indignantly to this—"Do you know, sir, what you ask of me—Why do you suppose that I am a person capable of committing murder?" "Murder," replied Mr. ——, bursting into a loud laugh, "well that is a good joke, doctor. I really did'nt think you were so thin-skinned and awfully particular. Why, I can get half a dozen doctors about these parts to do the job, but hearing so much of your skill, I sent for you. However, I see you ai'nt the man for me. Murder; Well, well, that beats all." "Yes," said the doctor, "murder is the name of the act, and whoever perpetrates it is a murderer." "Now there ai'nt no use getting excited about it" replied the landlord, "you hold to your own opinions, doctor, and we will hold to our own." Our friend then left.

There is at present much agitation on this subject in the American Journals, which we sincerely hope may be productive of the best results, and that the eyes of the public may be opened to a full perception of the heinousness of the crime of abortion.

Professor Hamilton continues his excellent researches into the subject of deformities after fractures. We hope to meet them in the shape of a goodly volume, when we will give them that attention which their great importance demands.

CLINICAL LECTURE.

On Extirpation of the Globe of the Eye. By Wm. Lawrence Esq., F.R.S, F.R.C.S., Senior Surgeon to St. Bartholomew's Hospital,

I wish to speak to-day of some operations on the globe of the eye, which have been lately performed at the hospital, and which have a kind of pathological interest that I see is very much discussed just at present

in Dublin, Brussels and elsewhere. I mean the influence which one eye, if diseased or the seat of certain destructive processes, happens to exert or to bear on an opposite and otherwise sound eye. You perceive what an important question this may become in practice, where the use of the eye of a patient is gone, and the other eye becomes doubly valuable. Yet this good eye, it now appears, is only to be preserved by removing the peccant organ root and branch, so jealous is the system, if I might so say, of everything wrong—so curious the sympathy existing between one eye and its fellow of the opposite side. The usual explanation which is offered of this sympathy of one eye with the other, with which I agree, is the following: the fibres of each optic nerve, respectively, come partly from the opposite side of the brain; you know the optic commissure rests upon the olivary process of the sphenoid bone, and in its interior the innermost fibres cross each other on entering the orbit; the nerve obtains a firm sheath also from the dura mater, which is continuous with the sclerotic coat of the eye; this sheath is formed by the splitting of the dura mater, the one surrounding the optic nerve—the other continuous with the periosteum of the orbit. So you see how completely entangled, so to speak, one eye appears in the anatomical nerves and other relations of the opposite one. I believe this decussation of the fibres is quite sufficient to explain this sympathy of one eye with its fellow, for, as to this sympathy being a reality, I can now recal many cases in the last fifty years where it undoubtedly existed.

I have repeatedly observed, especially in children who have lost one eye in early life, that there is a proneness of the other eye to become diseased, and completely disorganised in after life, and one might not be so astonished at this, if we merely consider it the result of one general constitutional cause such as syphilis for instance; but there is something more than this, and I think that this decussation of the nervous filaments explains it; and here I would advise you when you come to practise for yourselves, to warn patients who have thus lost a single eye, to be careful of the second eye. I think they are not at all alive to the danger of overworking a single eye; they do not conceive what the loss of a diseased eye when they were infants has to do with the excellent eye they may happen to have now that they have grown up and forgot all about it; or, on the other hand, I see patients now and again, who are on the point of being stone blind, but they say they got no warning to be careful of one eye, which perhaps for years has been their single means of communication by vision with the external world, their single means of subsistence in fact.

If the second eye begins to suffer, you are probably told that this has gone on for some time but was disregarded; there has been pain of the head or brow, not ordinary headache, motes or spots also have appeared before the sound eye, as well as spots of various colours, indicating disease of the retina itself; some slumbering inflammation, in fact, is going on in the bad eye which affect the entire system, and through it—the good eye. The two patients recently in the hospital have been under the care of my colleague Mr. Holmes Coote, who has obligingly placed the notes of the cases at my service; they are very full of instruction as bearing out what I have been saying, and which is now generally admitted.

J. C., aged 30, a tall active man, was admitted into St. Bartholomew's about three months ago (Sept. 8th,); it seems that he was a soldier, and had lost his right eye in 1843 in India, in Scinde, cataract having formed, which was operated on by the Surgeon of the regiment ten years subsequently.

He proceeded to the Crimea in 1854, and went through much hardship and got wounded; spots appeared now for the first time before the left eye, but in July 1855 these spots disappeared, and he was discharged from the Service. His vision then remained good till April of the present year, when black clouds and red spots once more began to dance before his eye, and he tells us his vision was completely lost in the dusk of the evening and at night. This painful condition of things, remained till Mr. Coote benevolently admitted him to the hospital; he was discharged from the military service on some miserable pension, and had no more claim on "military surgery." Mr. Coote made a series of careful examinations with the ophthalmoscope, and found an opaque mass of an incurable kind in the pupil of the right eye. With this incipient amaurosis in the left eye, the poor man himself was anxious to have anything at all done, and was certain the right eye was the cause of the mischief in the left, which the military surgeons more or less laughed at or poohpoohed! So he came to London, to St. Bartholomew's.

Well! after weighing all the *pros* and *cons* of the matter, the poor man submitted to have the operation done at once, and on the 26th of September the globe of the eye was removed. The operation is very trifling in character, and has been done 100 times in London.

Sept. 27th.—He had been complaining of black, green, and yellow spots before the operation; "they were the plague of his life, but to day all the black spots are gone." I need not go through all the metamorphoses of these spots, but coming to

Oct. 7th—"All the spots except some slight red ones are gone. The man can now read and distinguish colours, even in the evening," a thing

he had despaired of ever doing again; his joy is excessive, he is reading of Delhi, and burning to go to India. In November he had an artificial eye, and left the hospital in great joy, his eye-sight quite restored in one eye, and his appearance altogether changed for the better.

I may just say, that previous to the operation Mr. Coote satisfied himself that the optic mechanism of the good eye was perfect, otherwise perhaps it would not have been right to subject the man to this operation; it would be no doubt a very painful thing to say there would be no cure if the second eye was totally wrong also, but there would be no alternative.

The second case is that of a young man who lost the use of one eye by an explosion of "fire damp" in a colliery, and by the current of cold air, which immediately rushed through the mine, causing him a severe chill; the globe of the eye was atrophied, soft, and the cornea hazy. This "shrinking" and softness of the eye are very common where the eye becomes atrophied.

He suffered constant pain in the region of the back of the orbit and temple, so severe as to deprive him of sleep. He says it is not a headache, but a constant pain at the back of the orbit; the sight of the eye is failing also now for eighteen months; he can only grope about, as the dark spots sometimes shut out vision completely, and he is, to all intents and purposes, totally blind.

He was admitted Nov. 6th, but it seems not a very promising case from the beginning; the right eye, it was feared, was undergoing processes of change; the left eye was gone. Mr. Coote's colleague, however, objected to any operation, and you saw the man taken off the operating table!

Nov. 15.—A week after the last date, the operation was performed, as Mr. Coote had in the meantime obtained the opinion of all the surgical staff of the hospital, the majority leaning towards the operation, the recent facts in other hospitals being so satisfactory.

Nov. 15.—The man was allowed to get up and go about; he had also ordered for him meat diet and porter; you see this is the day after the operation, so that it does not inconvenience the patient very much. There is, in fact, little or no subsequent annoyance at all.

Nov. 29.—The wound is closed, and as the globe of the eye was previously atrophied, the change is very slight indeed. Next, as to the sight of the remaining eye; he reports it as "wonderfully improved;" the dark spots have vanished, he can see small objects such as pins, needles, leaves of a plant in the ward, all which he could not have done for a year previously; the pain so agonising in the orbit has also gone

away. This alone was a great point gained, for we must feel or sympathise with patients in their sufferings, quite as much as attend to scientific objects at surgical advancement. He became in every way changed for the better; indeed, he appeared the counterpart of the poor soldier's case, and was anxious to go to work again.

This operation of extirpation of the globe of the eye, though it sounds so formidable or difficult, is very simple. A spring speculum is placed between the eyelids as soon as you have patient under the effects of chloroform—it is described by Mr. Critchett—with a forceps of no particular character. You next seize the conjunctiva close to the cornea, as in the operation for strabismus; it is, in fact, the operation for strabismus, as far as this stage is concerned, continued all round the globe or orbit. A hook is passed under the various tendons of the muscles in succession, and finally the optic nerve is divided with a pair of scissors close to the globe at the back of the orbit. You see it is literally what it is called—a mere extirpation of the globe, leaving the muscles and conjunctiva. A very slight wound remains, as in fact all the muscles, except their tendons, together with the conjunctival membranes remain behind. Some slight bleeding follows, but it is easily controlled by a stream of cold water from a sponge dropped on the parts, or you may place soft pieces of lint in the cavity of the orbit, but you cannot, of course, use much pressure; indeed, the bleeding seldom gives much trouble. When the artificial eye is introduced, it is remarkable what a power of motion remains, especially leterally, as far as the movement of the porcelain eye is concerned. Ligature of vessels, of course, is out of the question; but simple cold water answers every purpose. Indeed, one sees persons in society every day with these enamel eyes, and only the surgeon can tell the difference.

I may now say a few words, by way of contrast, as the removal of tumours in the orbit interfering with vision—an operation altogether different in its nature, and not at all requiaing extirpation of the globe. A patient came to me in April 1856 with a tumour of the right orbit pressing on the eye, but not interfering with vision, though producing remarkable deformity. The tumour was bulging from below upwards; the eyes displaced; and, altogether, the man looked a pitiable object. I had rather a tedious operation to perform, to get to the deep part of the orbit behind the globe. I succeeded, however, pretty well, leaving probably a small part, where it should not be safe to follow it. The tumour was of a vascular nature—not fibrous, cystic, or malignant; it bled a great deal, but such a proceeding as tying vessels was out of the question, so we placed wet lint, and had to use pressure. We thus controlled

it, but the eye became disorganised; the glands, subsequently, at the angle of the jaw, became swollen, and we tried iodine. This removed the glandular swelling, and lessened the size of the eye. The man visits the hospital occasionally to show himself, and enjoys very fair health. We have had him now a year and a half under observation. The tumour is only vascular, and may not grow, but I think it is a case where I should be very slow to adopt any more cutting operations unnecessarily.

THERAPEUTICAL RECORD.

Naphtha Oil against Favus.—M. Chapelle asserts that this substance cures favus very quickly. He first has the head shaved, and applies a poultice upon it, so as to render the pustules as free as possible from all the coagulated or desiccated matters. He then applies a thin layer of naphtha on the whole surface of the head. This application must be made twice a day, and the head must be washed with soap and water before each. All the purulent vesicles found must be opened, and the pus expelled. When there is pain on application of the naphtha oil, another and not exciting oil must be mixed with it.

Treatment of Dysentery.—Prof. Piorry read a report of M. Haman on this subject, at the Académie de Médecine. M. Hamon has seen two epidemics of dysentery, and has employed with the greatest success the sulphate of alumina and potassa in injections. In children the dose must be from one to four grammes (20 to 80 grains), and four to eight grammes in adults. In one place thirty-five patients treated by this means have been cured, in another place out of forty patients, two old men only have died. We remember that a physician in the French army, Dr. Barthez, has obtained great advantage of this mode of treatment in Algeria, where dysentery is very violent.

Chronic Bronchitis.—M. Maude, the micrographer, who practices medicine in Paris, proposes to treat chronic bronchitis by the following fumigations, in an apparatus composed of a balloon of glass with two openings, one of which is in communication with an India rubber tube. He places 60 grammes (1½ ounce) of water, and 5 grammes (75 grains) of the following composition: Acetic acid 50 grammes, creasote 5 grammes, water 500 grammes. The liquid is heated, and the patient inhales the vapors. Gradually the strength of the liquid is increased. The varieties of chronic bronchitis which are best treated by fumigations are, the dry catarrh of Laennec, the pleuritic bronchitis, and the chronic bronchitis with a subcrepitant *râle*.

Coffee and lemon juice in ague.—M. Von Holsbeck draws attention to a mode of treatment he has found useful. Infuse an ounce of well roasted coffee in three ounces of boiling water, and having strained the fluid, acidulate it with lemon juice. The whole is given at once, five hours before the paroxysm.—*Presse Belge.*

Iodine in obstinate vomiting in pregnancy.—As we have already noticed, M. Eulenberg strongly recommends tincture of iodine for obstinate vomiting.

Other practitioners have tried it with various results; but according to the experience of MM. Becquerel and Buisson, the tincture acts most advantageously when combined with iod. of pot. The following is M. Buisson's formula: Tr. iod. ʒ i; iod. pot. ʒ i½; aq. dest. ʒ xxx. A tablespoonful is placed in a glass of sugared water, and this is to be divided into three doses, to be taken during the day.—*Gaz. Hôp.*

Pressure in phlegmasia dolens.—In relating the case of a young man who had suffered from phlegmasia dolens, and in whom the superficial veins continued much swollen, M. Trousseau cautioned his pupils against applying in similar cases firm bandages. The deep seated veins being obliterated, this enlargement of the superficial ones is a necessary consequence, and compressing them by a firm bandage would completely interrupt the circulation of the limb. A moderate degree of pressure, however, is admissible, as giving support to the walls of the superficial vessels, and preventing their becoming varicose.—*Ib.*

PERISCOPE.

(*From the North American Medico-Chirurgical Review.*)

Excision of Joints—[The most notable feature presented by operative surgery in Great Britain during the past few years, is the extent to which resection of the articular ends of the bones of the extremities has been carried. In the rage which at present seems to prevail in London for this formidable procedure, doubtless many patients have been made to suffer unnecessarily; but, on the other hand, we are equally sure that a larger number have been saved from far worse mutilation, or from death itself. The operation may, indeed, be looked upon as one of the great triumphs of modern surgical art; and as exhibiting in some measure its favorable results, the character of the cases to which it is adapted, and the high authority for its performance, we extract from recent numbers of the *Medical Times and Gazette* the following statistical report of the principal London hospitals for the second quarter of the present year.]

Case 1.—St. Thomas's: Mr. Solly.—A man aged twenty-seven in very reduced health from disease of the knee-joint of a year's duration. Numerous sinuses existed, and there had been profuse discharge. The articular surfaces of the three bones were sawn away in each instance very superficially. The man afterward sank, death taking place about three weeks after the operation.

Case 2.—St Thomas's: Mr. Simon.—A man, aged forty-two, in very delicate health. Disease of the ankle-joint had existed for three years, and several sinuses existed. Excision of the articular surfaces of the tibia, fibula, and astragalus was performed, the latter bone being very extensively diseased. The patient sank, and died on the fourth day.

Case 3.—St. Thomas's: Mr. Simon.—A man, aged forty, the subject of disease of the extremity of the humerus. A piece of necrosed bone had been removed some months previously, and on the present occasion a partial excision of the joint was performed, the outer condyle being wholly cut away. The ends of the outer bones being sound, were allowed to remain. Recovered well, but the joint will probably be stiff.

Case 4.—The Dreadnought: Mr. Tudor.—A Lascar, aged thirty, under care on account of disease of the left elbow-joint. Several sinuses existed, and he was much reduced in health. Excision of the lower fifth of the humerus, of the ulna below the coronoid process, and of the articular inch of the radius, was performed. It was the separation of the periosteum and the roughened state of the bones which rendered such an extensive resection needful. The man has done remarkably well, and the wound is now nearly healed. As yet there is not much power of voluntary movement.

Case 5.—St. Thomas's: Mr. South.—A boy, aged nine, under care on account of disease of the knee-joint, of strumous character, and of six months' standing. Resection of the articular ends of the bones on May 30. Favorable progress.

Case 6.—St. Thomas's: Mr. Le Gros Clarke.—A boy, aged fifteen. Disease of the elbow-joint, of a year's standing. Excision on May 23. Doing well.

Case 7.—St. Thomas's: Mr. South.—A woman, aged forty, in very fair health, the subject of disease of the knee-joint of three years' standing. Excision of the whole articulation on May 23. Death on July 9.

Case 8.—The Westminster: Mr. Holt.—A woman, aged twenty-three, in very feeble health. Disease of the knee-joint had followed an injury received seven weeks before admission. After six weeks further treatment it became manifest that excision presented the only alternative to amputation, and it was accordingly performed on June 23. The curved incision was practiced, and about an inch of the femur and half an inch of the tibia sawn away, the patella not being interfered with. The cartilage was ulcerated on the posterior part of the outer condyle, and the corresponding surface of the tibia; the synovial membrane was pulpy and thickened, and an abscess, which communicated with the joint, extended up the back part of the femur. The tendons of each side were divided. She bore the operation remarkably well, and less constitutional disturbance followed than is usual after amputation. The limb is at present quite straight, and the wound nearly healed.

Case 9.—The Westminster: Mr. Holt.—A very delicate boy, aged four. Admitted on account of necrosis of the femur, extending into the

knee-joint, and of two years' duration. Three sinuses existed, two of which led down to diseased bone. Upon opening the joint by the usual curved incision, the cartilage of the external condyle was found wholly removed, together with that of the corresponding surface of the tibia. About three-fourths of an inch of the femur were sawn away, and half an inch of the tibia. In the extremity of the femur as thus exposed, was a considerable cavity containing a sequestrum. The dead bone was removed, and the cavity gouged, leaving a mere circumferential shell. The patella being healthy was not interfered with, nor were the tendons divided, as the limb was easily brought into position. Considerable shock was felt at first, but afterward he became comfortable, and is now doing very well.

Case 10.—The Westminster: Mr. Holt.—A boy, aged seven, in a wretched state of health from disease of the hip-joint of two years' standing. Considerable swelling existed, and there were several sinuses leading to diseased bone. The femur was not dislocated, but forcibly retained to the acetabulum by false anchylosis. The head and neck of the femur were sawn away, and some necrosed bone from the acetabulum also removed.

Case 11.—St. Bartholomew's: Mr. Coote.—A soldier, aged twenty-eight, in good health, admitted with disease of the elbow-joint of eight years' duration. A single long incision was practiced, and the articular extremities of the three bones removed. Recovered well.

Case 12.—The Westminster: Mr. Hillman.—A boy, aged three, the subject of diseased elbow-joint of three months' duration, and consequent on injury. Carious bone was easily felt, and as his health was beginning to suffer, excision was determined on. A single long incision was practiced, and the extremities of the three bones were removed July 7 Doing well.

Case 13.—King's College: Mr. Fergusson.—A girl, aged fourteen, the subject of diseased elbow-joint from infancy. There was much chronic thickening about the joint and several open sores, but the child's health was still good. Anchylosis already existed. Mr. Fergusson cut out a wedge-shaped mass, which comprised the articular extremities of the three bones. Passive motion was commenced on the fourth day, and the process of healing advanced rapidly. Under treatment.

Case 14.—St. Mary's: Mr. Walton.—A strumous girl, aged fourteen, the subject from early childhood of chronic swelling of the knee. It had become painful only one month before admission The tibia was partially dislocated backward and upward, and the knee bent at nearly a right angle. A splint was used for nearly a month, but without obtaining any benefit—the joint, on the contrary having become more swollen, red, and

painful. It was now determined to excise the joint. The horseshoe incision was adopted, and the patella and the articular ends of the femur and tibia were removed. The joint was found wholly disorganized. All seemed doing well for three days after the operation, when rigors set in, and were soon followed by delirium, jaundice, and extreme prostration, Abscesses formed on the wrists, and backs of hands. She died, with all symptoms of pyæmia, on the tenth day. The wound had united to a considerable extent by first intention. The autopsy did not reveal any thing of importance.

Case 15.—University College: Mr. Erichsen.—A man, aged thirty-nine, in fair health, the subject of diseased elbow-joint, consequent on a blow three years before. Excision after the usual method on July 8. Doing well.

Case 16.—University College: Mr. Erichsen.—A healthy boy, aged seven, under care on account of diseased elbow-joint of three months' duration. Excision. Recovery.

Case 17.—King's College: Mr. Partridge.—A strumous-looking Creole, the subject of old-standing disease of the knee-joint. The joint was anchylosed at almost a right angle with the thigh, and he suffered extreme pain in the part. Resection was performed in the usual manner, and the leg put up in the swing-splint. Union slowly took place, and he was sent to the seaside for further benefit to his health. Recovered.

Case 18.—King's College: Mr. Partridge.—A boy, aged thirteen, in fair health. The limb was useless from anchylosis in a bent position, and the part was moreover liable to frequent attacks of inflammation, An unsuccessful attempt had been made to straighten the limb under chloroform. In the resection the H-incision was adopted. About an inch of the femur was removed, a portion of the patella, and a thin slice of the tibia. The bones were found firmly anchylosed together. In sawing through the femur a small abscess was opened in its outer condyle, which had probably communicated with the joint. The operation was performed on June 13; all went on well, and the wound was almost healed on August 27, the bones being all but firm.

Case 19.—University College: Mr. Erichsen.—A boy, aged seven, the subject of disease of the hip-joint, of nearly three years' duration. The head of the femur was excised on January 7. After the operation the limb was kept in position by a bracket-splint. There was profuse discharge, and the boy was very low for some time. Abscesses subsequently formed, and second removal of carious bone was practiced on May 20. Since that he has slowly improved. Under treatment,

Case 20.—King's College: Mr. Fergusson.—A man, aged thirty-four,

for sixteen years the subject of stiff knee. The joint was wholly disorganized, and resection was accordingly determined on. The patient did well after the operation, and the splint was taken off at the end of six weeks. The operation was performed on May 2, and the man was discharged well on August 5.

Case 21.—King's College: Mr Ferguson.—A strumous girl, aged twenty-one, for six months the subject of inflamed elbow-joint. Resection bythe single long incision was performed on May 16, and the patient afterward did very well. The patient was discharged cured on July 29, having very useful arm.

Case 22.—King's College: Mr. Fergusson.—A girl, aged ten, had been for several months under treatment on account of contracted knee. By means of splints the limb had been got almost straight. The joint, how, ever, continued painful, and Mr. Fergusson determined to resect. The operation was performed in the usual manner, and articular surfaces of the three bones were sawn away. The patient did remarkably well, and when, at the expiration of six weeks, the splint was removed, it was found that the firm bony union had taken place. The patient was discharged on August 10, (two months after the operation,) with an excellent limb, the shortening being not more than half an inch.

Case 23.—King's College: Mr. Bowman.—A boy, aged eleven, the subject of diseased hip-joint, of twenty months' standing. The femur was not dislocated, but its articular head was partially absorbed. It was resected, and, one edge of the acetabulum being carious, was gouged. He did well after the operation, and is now nearly recovered, having been able to be on crutches for some months. The operation was on April 4. His health has greatly improved.

Case 24.—King's College: Mr. Bowman.—A girl, aged five, for two years the subject of diseased hip-joint. In the resection the acetabulum was found to have had its borders broken down, and to contain soft gelatinous granulations, and pieces of loose bone. The horizontal ramus of the pubis was bare. The head of the femur had lost two-thirds of its substance. The child was placed in the hammock-swing (as designed by Mr. Heath) from the very first, and progressed remarkably well. The wound has now all but healed, and her general health is very good.

Excision of the Knee-Joint.—[The most perilous of the operations enumerated in the preceding report is undoubtedly that of excision of the ends of the bones constituting the knee-joint—an operation which, although established years ago by Park and Moreau, has only very recently recovered from the opprobrious position into which it had fallen by the recklessness and incompetency of those who seized upon it soon after its first

introduction, for the purpose of professional and public notoriety. To Mr. Fergusson, of London, is due the credit of its revival, and to Mr. Butcher, of Dublin, the profession is largely indebted for a complete exposition of the history of the operation, the circumstances under which it may be considered justifiable, the best methods of procedure, and the results so far ascertained. Mr. Butcher's instructive contributions may be found in the February number of the *Dublin Quarterly Journal of Medical Science;* and in the November number of the same valuable periodical he reports a case of his own, which so fully illustrates the great principles involved that our readers will excuse us for copying the account entire, notwithstanding its length.]

"Timothy Swift, aged twenty-seven years, a laborer, admitted into Mercer's Hospital April 8, 1857. *History.*—In February, 1854, the man was carrying a heavy sack of wheat; he slipped and fell to the ground; the weight crushed the limb. His left knee suffered severe stretching and contusion, which confined him to bed for nearly three months; after this the joint was stiff, and performed its motions very imperfectly, yet he returned to his employment. Shortly after, a dull pain lurked in it, greater at some times than at others, and some swelling remained. In about seven months after the primary accident he tripped in jumping over a ditch, and violently wrenched the joint a second time, after which he was obliged to remain in the house for several days. A few months passed over, and again he endeavored to earn his livelihood by employment; at this time frequent exacerbations of pain seized upon the part, and stiffness of the articulation increased. In this way he persisted in working on, but could not run or move the leg rapidly. Things thus progressed until about sixteen months before his admission to hospital, when he was violently thrown from a restive horse that he happened to be riding; the animal fell upon him heavily, bruising the left knee again; immediately after the accident the left leg and thigh swelled rapidly, and the patient was laid up, confined to bed, for about six months. After this he was treated by several medical men, but with no marked benefit, when he came to Dublin, in September, 1856, and was subjected in several hospitals to the most appropriate treatment. Not obtaining relief, he became discontented, and placed himself under the care of a quack doctor, who took all the money he possessed, and then dismissed him with the pleasing consciousness that he could not be cured. On the date already mentioned he sought my advice, and was admitted to hospital. Though his general health was not shattered to any alarming degree, there were many symptoms that awakened in my mind apprehensiveness of tamper-

ing any longer with a disease that was gradually, slowly, and surely undermining the healthy springs of life. The injurious consequences originating and set up from the local malady threatened, and that not far off, a more dangerous manifestation of their withering effects,—in few words, the management of the case required decision, promptitude, and judgment. The constitutional sympathy was evidenced by a rapid pulse, never below 100 ; by impaired digestion, a capricious appetite, frequent nausea, often vomiting. The body was but little wasted, yet on looking to the local changes, a very marked difference existed betwen the volume of the sound limb and that of the affected one. The right thigh measured in its circumference, at the widest part, 20½ inches, while the corresponding measurement in the affected limb was only 15 inches. The widest part of the calf of the sound limb measured 11½ inches, while that of the left was only 9 inches. The outline of the joint was lost, and its configuration spoiled ; a puffiness of the soft part filled up each sulcus around it, so that its walls and boundaries presented rather a cylindrical form. The patella was movable ; there was free motion of the leg in every direction ; great lateral mobility—that is, of the leg being pressed one way and the thigh to the opposite side, and unnatural motion was permitted, only to be explained by the destruction of the interior restraining ligaments of the joint; flexion, and extension, to a certain extent, were permitted—indeed, extension was allowed nearly to the full, but flexion byond a right angle induced the greatest torture ; percussion at the heel elicited at once deep suffering and excruciating torture in the joint, so as to make the patient start with terror and alarm ; there was no increased secretion within the joint, or marks of abscesses as having ever occurred. It was clear that the diagnosis pointed to thickening of the synovial membrane and ulceration of the cartilages, destruction of the head of the tibia to a greater extent than that of the condyles. All particulars considered, the case was by me considered perfectly suitable for excision.

On the 15th of April, 1857, I proceeded to operate after the following manner, the patient being placed under the influence of chloroform. I adopted the H incision, the cross-line passing beneath the patella; the flaps were with rapidity dissected back, and the shreds of the crucial ligaments spared by disease were divided, and next the lateral ligaments; in freeing the ligamentous attachments to the bones behind, the greatest precaution was adopted ; all being separated to the extent required, I swept the knife around the tibia and the femur close to the attachment of the soft part, and then took the saw bearing my name, and cut the bones from behind forward. It is necessary here to lay caution on the operator in

using the saw; he should ever remember the altered position of the limb to facilitate the protrusion of the end of the bones, and according to the angle of elevation must the direction of the blade of the saw traverse. The simple rule I would lay down for the correct execution of the section is this: the blade of the saw must pass in a direction parallel with a line drawn in the transverse axis of the articulating surface; accordingly, this procedure was carried out: thus when the limb is placed in a horizontal position, the one in which it is to be maintained for cure, the cut surfaces of the bones will be evenly together, no space will intervene between them behind or before; the wide surfaces oppose each other; all disposition to gliding one from the other is guarded against, and the most favorable circumstances are insured for intimate union. In the published records of cases it will appear that, in some instances, the surgeon has had to apply the saw a second and a third time to make the bones meet: if this be so, I am then warranted in enforcing my advice. By section planned after this method, the condyles of the femur, with their connecting osseous bond to the depth of a quarter of an inch, were removed, and a slice from the upper surfaces of the tibia, nearly three-quaters of an inch in thickness, was cut off. To warrant the removal of these parts I may just state that the incrusting cartilages of the condyles were entirely removed; the head of the tibia was similarly affected, and, in addition, deep pits were excavated by caries in each condyle, to the depth of a quarter of an inch. This being effected, all the thickened and diseased synovial membrane was clipped away, and the disorganized fatty mass below the patella; not a trace of the interarticular cartilage remained; the patella was coated with lympth beneath, and appeared to have struggled healthily from the disease around it; it was, therefore, suffered to remain. Thus, then, the accuracy of the diagnosis was established, and examination of the osseous surfaces pronounced them healthy. Three arteries, which bled rather freely, were next tied; the flaps at the transverse incision were brought together and maintained so by fine points of interrupted suture, and the lateral incisions were left open for the ready escape of blood and serum, the purging of the cut parts. The leg was with ease put into the straight position, and placed at once in the padded box-splint I had prepared for its reception; a splint was then laid over the anterior part of the thigh, and the tapes fastened, sustaining upward the hinged sides of the box: the foot was steadied by a footboard falling into the grooves within, and thus the leg was pressed upward so as to keep the divided osseous surfaces in contact; lint steeped in cold water was aid along the lateral incisions, and maintained accurately in position by the sides of the box when elevated. The chloroform acted admirably:

though the man was at first thrown into some violence, yet after the lapse of a few seconds he was totally subdued, and slept unconsciously all through. Shortly after the anæsthetic was discontinued, he awoke quickly, and was unconscious of the operation having been performed. Thus, quite conscious, with the limb immovably adjusted, the man was removed from the operating theatre to bed, when he got a full draught of wine. Shortly after, he discharged his stomach, a not unfrequent consequence after the use of chloroform. This sickness should be watched for, anticipated on the part of the surgeon; and, after emesis has taken place, the pallor, coldness, and collapse can readily and entirely be removed by a full warm stimulant—none better than a tumbler of hot punch with an opiate in it. Such was administered in this case, and by me in many others, with the desired effect, persistent quietude of the stomach; to restore general warmth, heat should be applied to the limbs and body. In two hours after the operation reaction was fairly established, and the patient complained of pain; a general weeping took place from the external lateral incision, and also from the internal; the quantity was such as to call for interference to check it, and it was very simply done. The sides of the box were let down, and compresses of fine lint laid over the points from where the blood issued most copiously, and finger-pressure maintained them in their places: all disposition to hemorrhage ceased by a perseverance in this mode of treatment for little more than half an hour; then gently the hands were taken away; a few additional pads were laid over each compress, so that when the sides of the box were again elevated, a gentle and equable support was more forcibly afforded throughout. Thirty drops of tincture of opium was given every third hour; and I ordered ice to be placed in the mouth to quench thirst. 7 P.M. No return of bleeding, and pain not considerable; reaction fully developed. 9 P.M. Pain very trifling, and dozed away; gave a tumbler of punch and thirty drops of tincture of opium, after which he slept steadily, though before this he had slight spasms and tendency to startings of the thigh forward; however, this was controlled by the anterior splint and the full opiate, which now completed the sedative influence of the drug.

"April 16th. Had a good night and slept with tranquillity, and this morning is much refreshed; pulse 104; tongue furred, and thirst; urine freely passed in quantity, yet skin hot; limb lying in excellent position, and exempt from pain; took some tea and toast for breakfast. 3 o'clock P.M. continuing to feel comfortable; opium to be continued. 9 o'clock P.M. free from pain, no uneasiness whatever in the limb; thirst alleviated by effervescing draughts in combination with the opium, and by the placing of small morsels of ice frequently in the mouth.

"17th. Had an excellent night; pulse 100; skin still hot, but thirst diminished; full opiates every third hour throughout the day.

"19th. Going on most favorably; the patient slept all night, and took his toast and tea for breakfast with appetite; let down the sides of the splint, the external and internal alternately, to soak up the fluids discharged from the wounds, which was quite practicable without stirring the limb from its posterior support; the full opiates to be continued.

"20th. The patient slept all night without interruption, and this morning his pulse was down to 86; it is soft, yet not feeble; his tongue is clean, the thirst nearly gone, and his bowels gently moved, and urine passes in full complement; he took his breakfast with appetite. I let down the sides of the box and soaked up purulent matter, which freely escaped from the wounds; placed dry linen over the pads on either side, but did not lift or disturb it from the surface upon which it rested.

"29th. Since last report everything has progressed in the most favorable way; a slight fullness was perceptible toward the inner side of the lower third of the thigh; this, however, was effectually controlled after fifty-six hours pressure of well applied graduated compresses, gently directing the discharge from behind forward. The transverse wound is now quite healed, and the lateral ones discharging pus freely, which I cautiously removed each day, as already specified without lifting the limb.

"May 5th. This day, for the first time since the operation, I lifted the limb from the box, twenty days after the operation, the anterior splint being firmly held to the limb by assistants, or, rather, the limb up to it, and renewed all the dressings. No soreness or excoriation of the posterior surface of the buttock, thigh or back; neither was there any pointing of matter backward, the lateral incisions affording a ready outlet for it as quickly as it might be secreted.

"May 6th. Discharge greatly diminished; wounds quickly closing in; no pain; sleeps without an opiate now, and no tendency whatever to spasm; he eats and drinks freely. Removed to a fresh bed.

"June 1st. Ever since last report gradually and steadily proceeding. The discharge has become very much diminished, and the lateral wounds contracted considerably; pressure on the patella gives no pain, and but little pus is forced out by pressure upon it; the leg and thigh are becoming rigidly connected; and pressure on the heel does not in the least degree elicit pain—a sufficient evidence that the change brought about at their junction is a healthy process.

"It is unnecessary to continue the daily report: both the careful dressing of the part, the mode of treatment pursued upon the limb, and

the dietetic rules prescribed continued to be the same, with but little alteration, up to July 2nd. At this period a small abscess formed just below the patella; from it, matter could be pressed out through the external lateral wound; but I cut short its route, and passed a knife into the abscess perpendicular to the surface; this allowed immediate exit to the contents, and at once almost the propriety of the measure was borne testimony to by the quick consolidation of the parts around, and the total dispersion of œdema and swelling. Now so healthily did the repair go on, and so effectually between the divided bones, that the patient could lift the limb *en masse* from the bed without the least fear. No yielding of the parts was consequent upon this trial—nay, more, on taking the limb between the hands and moving the leg and thigh in a contrary direction, antero-posteriorly or laterally, not the least motion was produced between them—an efficient test of the stoutness and integrity of the combining medium, the bond of union. Shortly after this an abscess and sinus formed above the patella, and to the inner side, over the sheath of the vessels in Hunter's canal; the contents from it could be gently pressed toward the internal lateral wound, and thus a ready outlet afforded for its discharge; pads, compresses, and well-applied, broad, adhesive straps obliterated it in a short time with accuracy and precision. The thickening of the parts around, particularly in the vicinity of the patella, was quickly reduced by suitable bandaging from the toes toward the knee, and from the groin downward, both meeting around and supporting the newly-applied and engrafted parts. After each dressing of the limb it was again steadily fixed in my fracture-box.

"The review of this case from first to last is most pleasing: from the beginning to the end there was never any alarming symptom. I attribute the favorable issue to the following causes:—

"1st. The judicious selection of the case; for, though the joint was irretrievably destroyed past all hopes of repair, yet the bones were not diseased beyond their articulating surfaces—therefore too large a quantity had not to be cut away.

"2d. The operation was expeditiously done under chloroform; therefore comparatively little shock.

'There was no hemorrhage; no persistent weeping from the wound permitted; therefore but little exhaustion.

"4th. The wound being dressed in a special manner, the limb was at at once placed in the box, and the adjusted bones restrained from the slightest deviation forward, inward, or outward. Moreover, by the adaptation of the footboard the leg was kept fairly pressed up against the thigh, which in its turn was sustained in a contrary direction by the

weight of the trunk, the proper axis being secured by the long arm of the splint resting parallel to and against the body. Now it should be borne in mind that this portion of the splint was not as yet lashed to the trunk by the web-girth, because during all this mechanical appliance the patient was insensible, under the influence of chloroform, and any pressure on the chest, so as to interfere with respiration during this tranquil sleep, not only would have been injudicious, but highly dangerous.

"5th. The position of the wounds, each lateral one being placed well back toward the popliteal space, thus readily allowing a free exit for all secretions, and effectually guarding all pouching in the ham.

"6th. The quietude, the repose in which the limb was suffered to remain for several days after the operation,—the long period of three weeks having elapsed before it was gently and steadily lifted, after the manner described, from its bed; though prior to this time on several occasions the discharge was readily soaked up, without the slighest disturbance of the member, owing to the construction of the box.

"7th. The full exhibition of opium during those days when wicked irritation might have been anticipated; the due exhibition of stimulants and nutritive diet, from the moment that the stomach would tolerate them at all to the termination of the cure.

"The condition of the man at present (11th September) is all that can be desired: long since the box has been laid aside, and the limb is steadied by the application of a splint behind, as in my former case; the bones seem to be grown into each other; there is not the slightest yielding or motion between; it is a permanent union, and resists shocks: the most forcible percussion at the heel neither elicits pain nor motion; the patient is able to rotate the limb from the hip inward and outward, flex and extend it with ease and confidence. There is a slight discharge from the wound on the inner side still, but this I have rather solicited, keeping it open as a drain by which any secretion, either of pus or serum, might readily escape. I have not permitted the man yet to walk upon the limb, though I have no doubt he could do so, and indeed he feels that he could do so if he tried: he lies upon the outside of the bed with his clothes on, and in a few days he will be walking about. The motions of the hip and ankle-joints remain as flexible as before the operation. The subject of these remarks is now as robust and as strong-looking as any man to be seen, and on contrasting the limbs as they rest side by side the amount of shortening is but very trivial. The degree of emaciation is not so characteristic now as before the operation. On the whole, the case is one with which I feel very deeply satisfied."

Ligaturing one of the Common Carotid Arteries for the Cure of Epilepsy. By *C. Angell*, of Pittsburg, Indiana.—[We quote the following cases, not for the purpose of encouraging the operation which they detail, but only to illustrate its results.]

Have we any known remedy for the cure of epilepsy? Without attempting to explain the nature, cause, or phenomena of this disease, I will present the result of two operations of tying the right common carotid for the cure of this disease.

Case 1.—The first operation was performed on the 2nd day of July, 1857, on William Brackus, of this place. He was twenty years of age, short, not over five feet in height, heavy-set, large head, short neck, full habit, sanguine temperament, right arm and hand deformed, idiotic in most respects. Has been having fits three or four years, seldom at first, but gradually growing in frequency and severity. After having had a variety of remedies tried without any good result, I proposed tying one of the common carotids, thinking that by permanently lessening the amount of blood passing to the brain it might cure him. After having had fifteen or twenty fits in the forepart of the day, he was put under the influence of chloroform, and I then placed a ligature on the right common carotid, about one inch below the bifurcation of the external and internal. The operation was performed without any difficulty.

The next day,—pulse 120; complains of difficulty in swallowing; talks with difficulty; complains of no pain; his mind about as it was before the operation; left side partially paralyzed.

Treatment: solution of salts and tartar emetic, as a cathartic and sedative. They operated well; wound covered with oil-silk, and kept constantly wet with ice water; gave nothing to eat but water-gruel and rice-water.

Without describing each particular day, I may say that he continued about as I have described him to-day: paralysis of the left arm and leg complete; still talks and swallows with difficulty; not much swelling about the wound and neck.

He remained in this condition until the night of the seventh day from the operation, when he died in a comatose condition. He never had any symptoms of fits after the operation.

An examination of the neck the next morning after he died showed no signs of inflammation; the parts all looked healthy and natural. I removed a section of the artery, two inches in length, above and below the ligature; coagulation was quite firm in artery. The family think he would have died as soon as he did if he had not been operated upon. I do not think so.

Case II.—The second operation was performed on the 8th of July, the same day on which the first patient died. This was on J. Bostick, of Brookston. He is forty years of age, naturally good constitution, full habit, sanguine temperament. Has had fits for seven years, but not so often or so hard, until the last three years; has them now almost every day, so that he is incapacitated from doing anything at all; his mind is also destroyed. He has been under treatment by a great many practitioners, both regular and irregular, but without benefit.

I performed the operation in the same way as in the former case. He soon came from under the influence of the chloroform, said he had suffered no pain, talked without any difficulty.

July 8th.—Says he feels well to-day; pulse 80; no unfavorable symptoms; swallows well, mind clear, talks well. I bled him this morning very freely, and put him on tartar-emetic and salts, as in the other case. He has continued to get along well, pulse never over 80. He would every few days wake-up bewildered or scared, this being the only symptom of returning fits until the 30th, when he had one so severe as to deprive him of sensibility; the next day had one about the same. He says they came on him different from what they did before. Before this he had no warning or premonitory symptoms of their approach; but now he feels a sensation of dizziness of some moments' duration,—long enough for him to lie down before they came on.

On the 17th of August he had a slight fit, and on the 5th of Sept. another, making in all four since the operation: it is now the 18th of September.

The ligature came away on the 22nd day; the wound is all healed up. He is going about attending to his business. He says he feels better than he has done for three years.

His family, and those that are well acquainted with him, all say that they can see a marked change in him,—in his actions, countenance, and more particularly in his mind.

What will be the result I cannot tell. He now has the appearance of being benefitted; how long this will continue I cannot determine. Whether the bettering of his condition is owing to the operation, or to the treatment, I cannot say.—*North-Western Medical and Surgical Journal.* Oct. 1857.

Removal of Warts by Chromic Acid. By *I. L. Crawcour, M. D.*, etc.—In a late number of the *Medical Times and Gazette*, appeared some experiments by Mr. Marshall, on the use of chromic acid. Two cases have recently come under my own observation, and the results

have been very satisfactory. A gentleman called on me about three months ago, complaining of a wart on the top of his head: it was about the size of a twenty-five cent piece, and the extremity was rough and split vertically. He had suffered from it for several years, and it gave him a great deal of trouble, bleeding whenever he combed his head. I painted it thoroughly, by means of a glass brush, with a saturated solution of chromic acid. The remedy produced little pain, the surface of the wart instantly blackened, and twelve days afterward a scab fell off, leaving a clear reddish surface underneath, and perfectly smooth. I examined this gentleman's head a few days ago; the skin is now perfectly healthy, and hair is growing on it. About two weeks ago, another case presented itself, of a similar character. I applied the same remedy. The scab, however, has not yet separated, but I fully expect the result to be identical with the former. The advantage of this caustic is, that it leaves no scar, and does not destroy the hair-bulbs when applied to the scalp. Its influence is undoubtedly owing to the readiness with which it parts with its oxygen, yielding half of its oxygen when applied to organic substances, passing to the state of green sesquioxide of chromium—this being the most powerful oxydizer we possess. Its preparation is very simple. Make a saturated solution of bichromate of potash, and add strong sulphuric acid as long as any precipitate of chromic acid falls; pour off the supernatant liquor, and dry the residue on a tile or brick. I prefer filtering through a glass funnel partially filled with asbestus. In preparing it, caution must be used not to allow any organic substance, as paper or wood, to come in contact with it, as instant decomposition ensues. The solution I employ is one part chromic acid and one part water.—*New Orleans Medical News*, Nov. 1857.

Budge on the Iris.—*Centre for the Optic and Oculo-motor Nerves.*—By Flourens it was shown that the removal of the corpora quadrigemina is followed by blindness. Destruction of them on one side only induced blindness on the opposite side. Flourens also observed contraction of the sphincter iridis of one, and even of both, sides when the corpora quadrigemina were irritated. These observations have been confirmed by Hertwig, Longet, and others.

In his experiments on the corpora quadrigemina, Budge has obtained the following results in reference to the iris and sight: Suppose each of the corpora quadrigemina be divided into an outer an inner half, the whole of the outer half of one of the anterior pair may be taken away

without motion of the iris of the opposite or corresponding side being thereby necessarily destroyed. In white rabbits, which are well adapted for the experiment on account of their irritable eyes, Budge has seen that both pupils become smaller in the light, although on one side the whole outer half of one of the anterior of the corpora quadrigemina was removed to the very bottom.

The inner side of the corpora quadrigemina, on the contrary, stands in close relation to the iris. Thus, in a rabbit in which Budge destroyed it, complete insensibility to light on the part of the sphincter of the opposite side was remarked. On the side of the wound, the iris continued to react as usual.

The sight, on the contrary, was not abolished. Whether after complete extirpation of the corpora quadrigemina of both sides total blindness results, Budge cannot, from his own experience say, as the animals experimented on were never in a condition, after the operation, to admit of any opinion being formed on the point.

Centre for the Iridal Fibres of the Fifth Nerve.—By section of the spinal marrow on one side, between the atlas and dentata, Budge found contraction of the pupil temporarily ensue; in a manner, he supposed, similar to what happens when the fifth nerve is cut.

Section of the spinal marrow on one side, at the point of the calamus scriptorius, is followed by loss of sensation in that domain of the fifth of the same side, along with the contraction of the pupil.

When the inner part of the medulla oblongata was alone divided, the corpus restiforme being untouched, Budge found that sensation in the face and eye was not abolished, and that there was not much contraction of the pupil.

Although further research is necessary in order to determine accurately the origin of the portio major of the fifth, and particularly that of the opthalmic branch, it may, Budge thinks, still be conjectured that the fibrils (motor) having relation to the pupil, spring in the spinal marrow above (before) the second cervical nerve, and that the rest of the fibrils join them in a *corpora restiformia* and *locus cæruleus*.

Influence of Light on the Pupil.—Three effects—viz: special sensation, common sensation, and motion—are produced by light entering the eye. We perceive the light, we have a feeling of pain or the opposite, and the size of the pupil is altered.

By the perception and sensation, ideas and impulses are often awakened. The motion of the iris may therefore be either directly excited by the light, or only indirectly called forth through the ideas and impulses.

The reaction of the iris to light is not quite the same in warm and in cold-blooded animals. Immediately after section of the optic nerve in mammals and birds, the pupil is no longer affected by light. In a rabbit, the optic nerve within the skull having been exposed, both eyes were tested to see if the pupil of each was equally affected by the light. One optic nerve was then divided, and the two eyes again tested, when it was found that the brightest light produced no effect on the pupil of the side operated on, whilst the pupil of the uninjured side remained obedient to light as before. In pigeons, the removal of the cerebral hemispheres with the optic tubercles does not alter the action of light on the pupil. After separation of the optic nerve from the corpora bigemina, however, the iris immediately becomes immovable to the brightest light. The iris of the opposite side reacts as usual.

A second condition on which the susceptibility of the iris to light depends, is the integrity of the corpora quadrigemina in mammals, and corpora bigemina in birds. According to the experiments of Flourens, Hertwig, Longet, Magendie, &c., when the anterior of the corpora quadrigemina in mammals, or the corpora bigemina in birds, were removed on one side, the iris of the opposite side was no longer obedient to light, while that of the same side was less so than before. When the anterior pair of the corpora quadrigemina or the corpora bigemina were extirpated, complete immobility of both pupils resulted. Lastly, in complete paralysis of the oculo-motor nerve, whether from disease or section, light has no influence on the pupil. When the fifth nerve is cut the iris is often motionless, but again becomes obedient to the light.

Contraction of the pupil by light, it is generally acknowledged, is not owing to direct action on the iris or its sphincter in mammals and birds. In these animals an essential condition for the action of light on the pupil, is that the path from the retina to the iris, through the optic nerve, to the anterior of the corpora quadrigemina, and thence to the oculo-motor nerve, be not interrupted. It has lately been, however, asserted by a Dutch physiologist, Ruiter, that he has observed light act on the pupil of the dog after death. And Dr. Brown-Séquard also affirms that he has observed contraction of the pupil after death in mammifera, and even in man, excited by light. Brown-Séquard admits, however, that the movements of the pupil during life are not due to the direct action of light on the iris.

In frogs and fishes it has been discovered that light, by its direct action on the iris, excites the sphincter iridis.—*British and For. Medico-Chir. Review.*

On the Cure of the Elephantiasis: By Al'har Ali-Kha'n of Delhi. Introductory Note.—Among the afflicting maladies which punish the vices and try the virtues of mankind, there are few disorders of which the consequences are more dreadful or the remedy in general the more desperate than the *judham* of the *Arabs* or *khorah* of the *Indians;* it is also called in *Arabia da l'afad*, a name corresponding with the *Leontiafis* of the *Greeks*, and supposed to have been given in allusion to the grim, distracted and lion-like countenances of the miserable persons who are affected with it. The more common name of the distemper is *Elephantiasis*, or, as Lucretius calls it, *Elephas*, because it renders the skin like that of an Elephant, uneven and wrinkled, with many tubercles and furrows; but this complaint must not be confounded with the *daul'fil*, or 'swelled legs,' described by the Arabian physicians, and very common in India. It has no fixed name in English, though Hilliary, in his "Observations on the Diseases of Barbadoes," calls it the "Leprosy of the Joints" because it principally affects the extremities, which in the last stage of the malady are distorted, and at length drop off: but since it is in truth a distemper corrupting the whole mass of blood, and therefore considered by Paul of Ægineta as an "universal ulcer," it requires a more general appellation, and may properly be named the "Black Leprosy;" which term is in fact adopted by M. Boissieu de Sauvages and Gorrofus, in contradiction to the "White Leprosy," or the *Beres* of the Arabs and *Leuce* of the Greeks.

This disease, by whatever name we distinguish it, is peculiar to hot climates, and has rarely appeared in *Europe:* the philosophical Poet of *Rome* supposes it confined *to the Banks of the Nile;* and it has certainly been imported from *Africa* into the *West India* Islands by the black slaves, who carried with them their resentment and their revenge; but it has been long known in *Hindustan*, and the writer of the following Dissertation, whose father was Physician to Na'dirsha'h, and accompanied him from Persia to Delhi, declares that it rages with virulence among the native inhabitants of Calcutta. His observation, that it is frequently a consequence of the *venereal infection*, would lead us to believe, that it might be radically cured by *mercury*, which has, nevertheless, been found ineffectual, and even hurtful, as Hilliary reports, in the West Indies. The juice of hemlock, suggested by the learned Michaelis, and approved by his medical friend Roederer, might be very efficacious at the beginning of the disorder, or in the milder forms of it; but, in the case of a malignant and inveterate *judham*, we must either administer a remedy of the highest power, or, agreeably to the desponding opinion of Celsus, "leave the patient to his fate, instead of teazing him with fruit

less medicines," and suffer him, in the forcible words of Aretæus, " to sink from inextricable slumber into death." The life of a man is, however, so dear to him by nature, and in general so valuable to society, that we should never despond, while a spark of it remains ; and, whatever apprehensions may be formed of future danger from the distant effects of arsenick, even though it should eradicate a present malady, yet as no such inconvenience has arisen from the use of it in India, and as experience must ever prevail over theory, I cannot help wishing that this ancient *Hindu* medicine may be fully tried under the inspection of our surgeons.

STATEMENT OF AT'HAR KHA'N OF DELHI.

In the year of the Messiah 1783, when the worthy and respectable *Maulavi* Mir Muhammed Hussain, who excels in every branch of useful knowledge, accompanied Mr. Richard Johnson from *Lucknow* to *Calcutta*, he visited the humble writer of this tract, who had long been attached to him with sincere affection ; and, in the course of their conversation, " One of the fruits of my late excursion," said he " is a present " for you, which suits your profession, and will be generally useful to " your species : conceiving you to be worthy of it by reason of your " assiduity in medical inquiries, I have brought you a prescription, the " ingredients of which are easily found, but not easily equalled as a " powerful remedy against all corruptions of the blood, the *judham* and " the *Persian Fire*, the remains of which are a source of infinite maladies. " It is an old secret of the Hindu Physicians who applied it also to the " cure of cold and moist distempers, as the palsy, distortions of the face, " relaxation of the nerves, and similar diseases ; its efficacy too has been " proved by long experience ; and this is the method of preparing it.

" Take of white arsenick, fine and fresh, one *tola ;* of picked black " pepper six times as much ; let both be well beaten at intervals for four " days successively in an iron mortar, and then reduced to an impalpable " powder in one of stone with a stone pestle, and thus completely levi- " gated, a little water being mixed with them. Make pills of them as " large as tares or small pulse, and keep them dry in a shady place.*

* The lowest weight in general use among the *Hindus* is the *reti*, called in *Sanscrit* either *rettica* or *ractica*, indicating *redness*, and *crishnala* from *crishna*, *black* : it is the red and black seed of the *gunja*-plant, which is a creeper of the same class and order at least with the *glycyrrhiza ;* but I take this from report, having never examined its blossoms. One *rattica* is said to be of equal weight with three barley-corns or four grains of rice in the husk ; and eight *reti* weights, used by jewellers, are equal to seven carats. I have weighed a number

"One of these pills must be swallowed morning and evening with "some *betel* leaf, or, in countries where *betel* is not at hand, with cold "water: if the body be cleansed from foulness and obstructions by gentle "cathartick and bleeding before the medicine is administered, the re-"medy will be the speedier."

The principal ingredient of this medicine is the arsenick, which the Arabs call *shucc*, the Persians' *mergi mush* or *mouse-bane*, and the Indians' *sanc' hya;* a mineral substance ponderous and *crystaline:* the *orpiment*, or *yellow* arsenick, is the weaker sort. It is a deadly poison, and so subtle that, when mice are killed by it, the very smell of the dead will destroy the living of that species: after it has been kept about seven years, it loses much of its force; its color becomes turbid; and its weight is diminished. This mineral is hot and dry in the fourth degree; it causes suppuration, disolves or unites, according to the quantity given; and is very useful in closing the lips of wounds, when the pain is too intense to be borne. An unguent made of it with oils of any sort is an effectual remedy for some cutaneous disorders, and, mixed with rose-water, it is good for cold tumors and for the dropsy; but it must never be administered without the greatest caution; for such is its power, that the smallest quantity of it in powder, drawn, like alcohol, between the eyelashes, would in a single day entirely corrode the coats and humours of the eye; and fourteen *rites* of it would in the same time destroy life. The best antidote against its effects are the scrapings of leather reduced to ashes; if the quantity of arsenick taken be accurately known, four times as much of those ashes, mixed with water and drunk by the patient, will sheath and counteract the poison.

The writer conformably to the directions of his learned friend, prepared the medicine; and, in the same year gave it to numbers, who were reduced by the diseases above mentioned to the point of death; God is his witness, that they grew better from day to day, were at last completely cured, and are now living (except one or two who died of other

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of the seeds in diamond scales, and find the average Apothecary's weight of one seed to be a grain and *five-sixteenths*. Now in the *Hindu* medical books *ten* of the *rattica* seeds are one *mashaca*, and eight *mashacas* make a *tolaca* or *tola;* but in the law-books of Bengal a *mashaca* constists of *sixteen raticas* and a *tolaca* of *five mashas;* and according to some authorities five *retis* only go to one *masha*, sixteen of which make a *tolaca*. We may observe, that the silver *reti*-weights used by the goldsmiths at Benares are twice as heavy as the seeds—and thence it is, that eight *retis* are commonly said to constitute one *masha*, that is eight silver weights, or sixteen seeds, eighty of which seeds, of 105 grains, constitute the quantity of arsenick in the Hindu prescription.

disorders) to attest the truth of this assertion. One of his patients was a Parsi, named Menhucher, who had come from Surat to this city, and had fixed his abode near the writer's house: he was so cruelly afflicted with a confirmed lues, here called the *Persian Fire*, that his hands and feet were entirely ulcerated and almost corroded, so that he became an object of disgust and abhorrence. This man consulted the writer on his case, the state of which he disclosed without reserve. Some blood was taken from him on the same day, and a cathartic administered on the next. On the third day he began to take the *arsenick-pills*, and, by the blessing of God, the virulence of his disorder abated by degrees, until signs of returning health appeared; in a fortnight his recovery was complete, and he was bathed, according to the practice of our Physicians: he seemed to have no virus left in his blood, and none has since been perceived by him.

But the power of this medicine has chiefly been tried in the cure of the *juzam*, as the word is pronounced in India; a disorder infecting the whole mass of blood, and thence called by some *fisad khun*. The former name is derived from an Arabic root signifying, in general, *amputation*, *maiming*, *excision*, and, particularly, the *truncation* or *erosion of the fingers*, which happens in the last stage of the disease. It is extremely contagious, and for that reason the Prophet said; *ferru mina l mejdhumi cama teferru mina l asad*, or, "Flee from a person afflicted with judham, as you would from a lion." The author of the *Babbru'l-jawabir*, or Sea of Pearls, ranks it as an infectious malady with the measles, the small-pox, and the plague. It is also hereditary, and, in that respect, classed by medical writers with the gout, the consumption, and the white leprosy.

A common cause of this distemper is the unwholesome diet of the natives, many of whom are accustomed, after eating a quantity of fish, to swallow copious draughts of milk, which fail not to cause an accumulation of yellow and black bile, which mingles itself with the blood and corrupts it: but it has other causes; for a *Brahmen*, who had never tasted fish in his life, applied lately to the composer of this essay, and appeared in the highest degree affected by a corruption of blood, which he might have inherited, or acquired by other means. Those, whose religion permits them to eat *beef*, are often exposed to the danger of heating their blood intensely through the knavery of the butchers in the *Bazaar*, who fatten their calves with *Balawer*, and those who are so ill-advised as to take provocatives, a folly extremely common in India, at first are insensible of the mischief, but as soon as the increased moisture is dispersed, find their whole mass of blood inflamed and, as it were, adust; whence arises the

disorder of which we are now treating. The *Persian*, or venereal Fire generally ends in this malady; as one Devi Prasad, lately in the service of Mr. Vansittart, and some others, have convinced me by an unreserved account of their several cases.

It may here be worth while to report a remarkable case, which was related to me by a man who had been afflicted with the *juzam* near four years; before which time he had been disordered with the *Persian Fire*, and having closed an ulcer by means of a strong healing plaister, was attacked by a violent pain in his joints: on this he applied to a *Cabiraja*, or *Hindu* Physician, who gave him some pills, with a positive assurance that the use of them would remove his pain in a few days; and in a few days it was, in fact, wholly removed; but a very short time after, the symptoms of the *juzam* appeared, which continually increased to such a degree, that his fingers and toes were on the point of dropping off. It was afterwards discovered, that the pills which he had taken were made of cinnabar, a common preparation of the Hindu; the heat of which had first stirred the humours, which, on stopping the external discharge, had fallen on the joints, and then had occasioned a quantity of adust bile to mix itself with the blood and infect the whole mass.

Of this dreadful complaint, however caused, the first symptoms are a numbness and redness of the whole body, and principally the face, an impeded hoarse voice, thin hair and even baldness, offensive perspiration and breath, and whitlows on the nails. The cure is best begun with copious bleeding, and cooling drink, such as a decoction of the *nilufer*, or Nymphea, and of violets, with some doses of manna; after which stronger cathartics must be administered. But no remedy has proved so efficacious as the pills composed of arsenick and pepper: one instance of their effect may here be mentioned and many more may be added, if required.

In the month of February in the year just mentioned, one *Shaikh* Ramazani, who then was an upper-servant to the Board of Revenue, had so corrupt a mass of blood, that a black leprosy of his joints was approaching, and most of his limbs began to be ulcerated: in this condition he applied to the writer, and requested immediate assistance. Though the disordered state of his blood was evident on inspection, and required no particular declaration of it, yet many questions were put to him, and it was clear from his answers that he had confirmed *juzam*: he then lost a great deal of blood, and after due preparation, took the arsenick-pills. After the first week his malady seemed alleviated; in the second it was considerably diminished, and in the third so entirely removed, that the patient went into the bath of health, as a token that he no longer needed a physician.

On Restrained Action of the Diaphragm in Pericarditis. By Dr. Barlow.—In some clinical observations, the other day, Dr. Barlow directed the attention of his class to the important indication furnished by the unduly restrained action of the diaphragm in certain cases of thoracic inflammation. He had especially noticed it in pericarditis, and more than once it had helped him to a diagnosis. The subject of pericarditis, anxious to avoid the pain caused by any movement, holds his whole chest as immovable as possible, but especially restrains the actions of the diaphragm. In the case of a boy who was admitted with this affection, it was found that he had tied a broad belt tightly round his body, in order, no doubt, to conduce to this end. Another case, Dr. Barlow stated, had impressed itself upon his memory, in which this system was very well marked, and in which yet no pericardial rubbing sound could be detected. Death took place, and at the autopsy the pericardium was found full of pus, thus accounting for the absence of the friction sound.—*Medical Times and Gazette.*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

Clinical Instruction.—The Edinburgh *Monthly Journal* gives the following statement of the requirements of the different Universities and Colleges of Great Britain, as regards the time spent by students in the prosecution of Clinical studies. McGill College requires six months attendance upon lectures on Clinical Surgery, and the same on Clinical Medicine.

"The Edinburgh University, for the degree of M. D., requires *three months* attendance upon lectures on clinical surgery, *six months* upon lectures upon clinical medicine, and *twelve months* attendance in the wards of the Medical Hospital.

The University of Glasgow, for the same degree, requires *twenty-four months* attendance upon a medical hospital, *twenty-four months* upon lectures on clinical medicine, and the same amount of time devoted to attendance upon a surgical hospital, and upon lectures on clinical surgery.

The University of Aberdeen requires *six months* attendance upon lectures on clinical medicine, *three months* clinical surgery, *twenty-four months* in a medical hospital, and the same time in a surgical hospital.

The University of St. Andrews requires *six months* attendance of lectures on clinical medicine, and the same on clinical surgery, and *twenty-four months* attendance in a medical, and the same in a surgical hospital.

The London University requires, for its full medical degree, that the candidate should have attended *twelve months* on each of the four courses of clinical instruction, viz.: clinical medicine, clinical surgery, medical hospital, and surgical hospital.

The Dublin University requires, for the lowest degree of M. B., *nine months* attendance upon clinical medicine; and for the surgical diploma, *twenty-seven months* upon each of the courses, medical hospital, clinical medicine, surgical hospital and clinical surgery.

The Queen's University, of Ireland, requires, for the first degree, *six months* attendance upon each of the above courses; and for the second degree, *eighteen months* in each of the two hospitals, and the same length of time on clinical surgery.

The Royal College of Physicians, London, requires *thirty-six months* attendance upon lectures in clinical medicine, and the same length of time in a medical hospital.

The King and Queen's College of Physicians, Ireland, requires attendance upon clinical medicine and a medical hospital, each *six months*, and upon clinical surgery and a surgical hospital, each *twenty-four months*.

The Royal College of Surgeons, Edinburgh, requires attendance upon clinical medicine and clinical surgery, each *six months*, and the two hospitals each *twenty-one months*.

The Faculty of Physicians and Surgeons, of Glasgow, requires the same.

The Royal College of Surgeons, London, requires *nine months* in clinical medicine, *twenty-seven* in clinical surgery, attendance of *one winter* and *one summer* in a medical hospital, and *three winters* and *two summers* in a surgical hospital.

The Royal College of Surgeons, Dublin, requires attendance on each of the four courses of clinical instruction before named, *twenty-seven months*.

The Apothecaries' Hall, England, requires *nine months* of clinical medicine, and *eighteen months* in a medical hospital.

The Apothecaries' Hall, Ireland, requires *eighteen months* attendance upon each of the four courses.

The Army Medical Board requires, of clinical medicine and clinical surgery, each *eight months*, and attendance upon each of the hospitals *eighteen months*.

The Navy Medical Board requires the same attendance of *eighteen months* in each of the hospitals, and *six months* attendance upon each of the courses of clinical lectures.

The East India Company Medical Service requires *six months* attendance upon lectures in clinical medicine.

By this statement it will be seen that clinical instruction is regarded so essential in Great Britain, that not a single institution grants a diploma to a candidate who has not availed himself of such advantages."

CORRESPONDENCE.

A STUDENT'S LETTERS.

No. V.

Edinburgh has been visited lately by a curiosity in a physiological point of view, in the shape of a German, who, by an arrest of development, is deficient of a sternum, and thus enables the movements of the heart and arteries to be very clearly seen. By some the sternum is said to be wanting, but Professor Goodsir says that it is merely a fissure in that bone. The case appears to be almost unique. I say almost, because he has travelled all over the Continent, and been at most medical schools, as Paris, Vienna, St. Petersburgh, &c., as well as London, and no case similar to his own had been seen; but when he came to Edinburgh Professor Bennett showed him a preparation which was met with in the Pathological theatre, in which the sternum was deficient, there being a membrane merely between the anterior extremities of the ribs. He is a man of about 22 years of age, and at first sight does not appear to have anything the matter with him. He has a fair amount of muscular strength, and enjoys good health. He was never aware of any peculiarity in his conformation until a few years ago, when he was troubled with some slight thoracic affection, and went to an hospital to be relieved, when the deformity (so to speak) was first noticed.

I was present when Dr. Bennett gave a lecture on the case, and explained the motions which were visible. After first pointing out the relations of the heart with regard to its position, etc., he showed that the heart is in reality more in the medium line than we are generally inclined to consider it. When the parts are first exposed, you merely see a slight depression in the sternal locality, with a tumour pulsating in its middle, apparently only covered with integument. But as the individual has the power of increasing this space by taking a full

inspiration, and then the parts become more visible, and two pulsations can be distinguished, one directly in the centre and one nearer the clavicle. The one in the middle has been supposed to be the ventricle and the upper the auricle, but Dr. Bennett has shown that the former is the auricle and the latter the aorta, as beneath the middle pulsation another can be distinguished in full inspiration.

By attaching slips of adhesive plaster, 2 or 3 inches long, to the parts corresponding with these movements, so that one end is allowed to be free, then you see that the motion conveyed to the lowest is synchronous with that of the highest, and that the one in the centre is intermediate with the other two in respect of its motion, thus showing that this must be the auricle. It can also be more clearly proved in another way. A caoutchouc tube, with a bulbous extremity at one end, has a glass tube attached to the other. This is nearly filled with a coloured fluid, and the bulbous part being applied beneath the nipple in the normal situation of the beat of the apex, each of the ventricular pulsations is conveyed to the fluid, and it is thus made to rise and fall in the glass tube, when this tube is then placed near the strips of plaster which indicate the precise period of movement beneath. It is found that the fluid rises in the tube when the upper strip moves and falls when the one in the centre is in motion. The stethescope reveals nothing more than the normal sound of the heart.

When he makes a violent expiration the left lung is driven very forcibly through the opening, and forms a very large tumour in front. When this is percussed the common resonant pulmonic sound is elicited, and the stethescope applied over it enables the vesicular murmur to be clearly perceived.

The lung cannot thus be made to protrude in normal respiration but by forced expiration only. This peculiarity appears to throw some light on the cause of emphysema, which has been found to affect the upper and anterior portions as a general rule, while the inferior posterior parts are very often collapsed.

Dr. Gairdner's theory of this cause is (as you no doubt know) that as the malady is generally connected with chronic bronchitis, the smaller bronchial tubes are filled with viscid mucus which acts as a ball valve plugging up the tube and allowing air to be expelled from the air vesicles but not to return, and thus they become collapsed after a time, then in order to make up for this deficient expansibility in one part, the vesicles in the other become enlarged by the continued expanding force of the air, which is propelled into them by the expansion of the thorax, but why the posterior lobes were always the parts collapsed, and the

anterior always dilated, was not clearly solved, but which I think can now be easily explained. Because, as clearly seen in this case, during expiration, the anterior lobes become very much more filled with air than during inspiration. The tracheal and bronchial tubes apparently not being able to allow all the air to pass out at once, and when it leaves the posterior it accumulates in those in front for a space of time sufficient to allow it gradually to pass away, and also, I think, it can be easily perceived that as the lungs are never wholly empty of air, that the antero superior lobes contain more than the postero inferior. Reasoning from these data, I think we might possibly find out why inflammation of the upper lobes is so much more fatal than when it attacks those below, and likewise we might get a clue as to the reason why the superior are more apt to be affected with phthisis, and the inferior with pneumonia; but I am rather digressing from my subject. Prof. Goodsir thinks that the ribs on each side are attached to the sternum, and no doubt he is correct; because although they cannot be moved nearer one another yet they may be pressed inwards towards the vertebral column to an incredible extent, and the fissure can be increased from half an inch to 3 or 4 inches. What is more remarkable, these unnatural movements which interfere so much with the most important organs, neither gives him any pain nor affects his health in the least, although he has undergone many and long continued examinations. I hope I have not taken up too much of your valuable space, but I thought that the case might be interesting.

We will have a new work out here by the first of March, from the pen of Dr. Bennett. I am not sure of its title, but I think it will be either a Practice of Medicine or Clinical Medicine. It will be about as large as the second volume of Watson's Practice, as published here.

In this work will be developed his most recent views with regard to inflammation, which have been causing so much noise in the medical world on this side, and which appear to be so much at variance with our most established principles. He has come out against antiphlogistics and blood-letting in particular with most vehemence, and which has called forth a most severe criticism from Watson in the latest publication of his lectures. (1857, fourth edition.) It is amusing to go round the wards with Dr. Bennett, as he never allows a chance to escape without uttering a tirade against mercury and blood-letting. He says the benefit from cupping and leeching is not so much due to the blood abstracted but to the warmth which is kept up during and after their application. Whether Dr. Bennett's theory will stand the test of time or not is another question.

Edinburgh, 1st Feb. 1858.

LONDON CORRESPONDENCE. No. 12.

London, 5th February, 1858.

This has been one of the quietest medical winters thus far, since my residence in London, and nothing very striking has occurred at the Societies especially, of sufficient interest to bring before your numerous readers. There is one little fact, however, that I must not pass over. The Medical Society of London, the oldest in the Metropolis, has been out of diplomas for the last four years, during which time another member of the council besides myself unceasingly tormented the governing body to have a new plate for their diploma, which was consented to after many hard fought battles. The new diploma has, therefore, been engraved and printed, and ere this arrives at Montreal, the diplomas which should have been in the hands of my Canadian friends whom I have had the honour of getting elected from time to time, will have reached them. If an honour is conferred upon a man at a distance, a diploma most generally accompanies it; this especially applies to universities however. In Montreal it would seem parchment is either scarce or dear, for whilst feeling deeply grateful for an honour conferred upon me in that city, a simple letter without anything else made me acquainted with the fact.

The *old* Sydenham Society is numbered with the things that were, but it has been succeeded by another called the *New Sydenham Society*, under the presidency of Dr. C. J. B. Williams, and will be conducted on more liberal principles, and will give a great deal for one guinea. It is anxious to enrol as many members as possible, as the larger the number will permit of the issue of several works annually. The Society contemplates publishing translations of foreign works, papers and essays of merit, to be reproduced as early as practicable after their original issue; British works, papers, lectures, &c., which, whilst of great value, have become from any cause difficult to be obtained, excluding those of living authors; annual volumes, consisting of reports in abstract of the progress of the different branches of medical and surgical science during the year; and lastly, dictionaries of medical bibliography and biography. These included in the two first divisions will be held to have the first claim on the attention of the Society. This will afford an idea of what the Society intends to do, and may entice many members to join throughout North America.

I will now describe some of the latest novelties which have come under my notice in the hospital. On the 16th January I saw Mr. Hancock excise a large portion of the pelvis of a young woman for long standing disease of the hip joint, removing as well the head and neck of the femur. The lips and floor of the acetabulum were taken away;

the spine of the ischium was cut off, and even a large piece of the tuberosity was extracted. The operation was formidable, as he used the chisel and mallet, and the fingers could be poked into the pelvis through the ischiatic notches. I had my own forefinger there. She recovered from the shock of the operation, and had much debility at the time from the chloroform; she lost scarcely any blood, and went on well in every respect, until the eighth day, when that scourge of our hospitals—erysipelas—attacked the wound and she sank the same night. Had it been otherwise I fully believe she would have ultimately made as good a recovery as in a somewhat similar instance under Mr. Hancock's care this period last year, which I referred to in a letter at the time, in your 4th volume, page 398. Excision of diseased bone, whether in joints or on the shafts, is now an every day occurrence. At some of the hospitals —King's College especially—an amputation is a very rare thing to be seen. This principle is applied to the most trifling joints, the fingers particularly, for now a digit is not removed, but the dead joint or portion of diseased bone is removed instead. The treatment of chronic hydrarthrosis of the knee joint by injecting tincture of iodine, in the manner recently brought forward by Dr. Macdonnell, who has published several successful cases in your journal, has been tried with the best results by Mr. Erichsen at University College, and will shortly be brought before the profession. Dr. Macdonell's papers have been copied into several journals and have excited some attention. There have been so many instances of castration within the last six months, that one feels uneasy lest it might interfere with the procreation of our race; but so far as I have seen, the operation has been justifiable. About a fortnight ago, quite a stir was made at Bartholomew's Hospital to receive the Siamese Ambassadors and suite who were anxious to see the operations. They came in great state and pomp and occupied the front row of the theatre. An arm and a leg were submitted to amputation for their especial gratification, and lithotomy was performed. They seemed to evince great interest in the proceedings, especially did the native doctor, who was dressed in a crimson cloth loose coat. He was presented with one of the calculi, as two were removed. They appeared to be quiet harmless people, anxious to learn and see all they can, and by no means bloodthirsty, like some of their neighbours. They left the hospital highly gratified, accompanied by Dr. Tweedy, who was appointed by the Queen to attend upon them.

I saw an uncommon operation a few weeks back at the London Hospital, by Mr. Curling, upon an elderly man who had a large tumour growing from his right tonsil, extending into the pharynx and impeding

deglutition and respiration. The glands on both sides of his neck were much enlarged, which raised a suspicion of malignancy, and the man's eyes seemed bursting from their sockets. The base of the tumour was ligatured by means of a tumour tourniquet, and gradually tightened, which produced detachment in 48 hours. A careful examination by Dr. Andrew Clark, one of the best microscopists in London, revealed its true nature to be fibrous. The man has got quite well and left the hospital, the enlargement of the glands having wholly disappeared. In applying the ligature, Mr. Curling found it necessary to extend the fissure of the lip, by an incision through the cheek, to allow greater freedom of manipulation. A tumour of a similar character, I saw Mr. Tatum remove from a lad in St. George's Hospital on the last day of the year. It extended down the pharynx from the posterior nares and was attached to the body of the sphenoid bone between the pterygoid processes, and consisted of several lobes. Mr. Tatum found it necessary to remove the whole upper jaw, which was done very expeditiously and cleverly, without the loss of any blood, only one small vessel requiring to be tied. This case like Mr. Curling's has turned out quite well.

I could multiply the number of operations *ad infinitum*, but they would perhaps weary the attention of your readers, as there is such a sameness about the whole of them. There is, however, a feature in eye surgery worth noticing, as it has proved such a truly valuable one, and has been now tested by many months experience in some hundreds of instances. It is this, when an eye is altogether sightless and destroyed from disease or injury, the opposite one, hitherto sound, takes on some sympathetic inflammatory action, and will, in the course of a short time become useless with total blindness. This sad event is prevented by removal of the old and useless eye, which has caused the sound one to become diseased, and the normal condition of the remaining eye is completely restored. This I may say is the case in every 95 out of 100 instances. The removal of the globe is mostly effected by the sub-conjunctival method, cutting that membrane with scissors close to be cornea, which thus leaves a sort of bed for an artificial eye to rest upon, and which moreover permits of synchronous motion with the sound eye.

My friend, Dr. Barnes has been employing for some time the phosphate of zinc in diseases of debility of the nervous system, especially epilepsy, and with good success. The dose varies from 2 grains upwards, combined with dilute phosphoric acid, and some general tonic, three times a day, according to the special indication. It is well worthy a trial. He was led to combine the two in reasoning upon the well known efficacy of zinc in epilepsy, and the fact of there being a waste of phosphorus in the substance of the brain in exhausting nervous diseases.

The most striking books of the New Year are, Thompson on the Diseases of the Prostate, one of the most valuable monographs ever published, Maclises' first number of his folio work on Dislocations and Fractures, a companion to his surgical Anatomy, and a creditable production; and lastly the transactions of the Pathological Society. This last work came out shortly before the new year, and does not fall short of its predecessors. It is filled with matter of the most valuable kind.

Two great events have occupied the public mind for the last few weeks: both are over, but will not soon be forgotten. The first is the marriage of the Princess Royal, which every loyal Canadian must by this time be familiar with, through the press; the other is the actual completion of the launch of the Leviathan. I went down to Greenwich this day week to see her float at high tide, but it did not come high enough to effect it. She however floated on Sunday, and lays at her moorings at Deptford, visited by thousands of people.

Two days ago I was present when Mr. Erichson at University College Hospital performed almost a precisely similar operation upon a girl as Mr. Hancock did, only that the disease was most extensive, and the pelvis in a crumbling condition from necrosis on the affected side. She was exhausted from the most profuse suppuration, and not expected to live many days; excision of the disease was done as a last resort, but she remains at this moment very feeble and weak.

Continuing the part of a chronicler of the progress of some of your Canadian graduates, I must not forget to state that Dr. Pringle of Cornwall in Canada, is earning laurels for himself by his assiduity and perseverance at University College. He is bestowing great attention upon histological anatomy and pathology, and I have no doubt he will be a valuable accession to the many labourers in his native country. Dr. Simpson (one of my old pupils) has recently arrived in London, but I am not aware of his intention to remain here long. Mr. Reid is at Edinburgh, and like all Canadian students, is a very great favourite. Very shortly he will return to Canada with the diploma in his pocket of the Edinburgh College of Surgeons. There is quite a demand for medical officers for the army, and likely to be so for some time. The hint may possibly prove of service to some aspiring Canadian M.D.

You may expect to hear from me again, very shortly, as I have it on the best authority that the great and long-wished-for Medical Reform Bill will actually pass during the present session of Parliament. It is in the hands of the Government, and has already been drawn up.

G.

MEDICAL APPOINTMENTS.

Secretary's Office,
Toronto, February 20, 1858.

His Excellency the Governor General has been pleased to make the following appointments, viz. :—

John Lorn McDougall, Esq., to be an Associate Coroner for the United Counties of Lanark and Renfrew.

Ernest A. Koetsch, Esq., M.D., to be an Assistant Coroner for the County of Waterloo.

Thomas Graham, Esq., to be an Associate Coroner for the County of Lincoln.

Alexander Richard Stephen, Esq., Surgeon, to be an Associate Coroner for the County of Simcoe.

Toronto, February 27, 1858.

His Excellency the Governor General has been pleased to make the following appointments, viz. :—

Gabriel Balfour, Henry Lemmon, and Robert Hill Dee, M.D., Esquires, to be Associate Coroners for the County of Brant.

Alexander Richard Stephen, Esquire, Surgeon, to be Coroner for the Town of Collingwood.

MILITARY DISTRICT NUMBER NINE, LOWER CANADA.

First Battalion of Vercheres.—To be Surgeon : Jacques Adelstan Le-Moyne de Martigny, Esq., vice Nichols, deceased.

MEDICAL NEWS.

Liebig has analysed the bread sent to him from Hong Kong, and has found it to contain a quarter-gramme of arsenic for every fifty grammes of bread, or more than sufficient to cause death. It had been mixed with the dough..... Animal and vegetable substances may be kept for a long period perfectly free from decomposition when immersed in glycerine.....An Inebriate Asylum is about to be founded in New York: collections in aid of it have already been raised to the amount of $32,000. The total amount to be raised is $50,000..... A woman was lately delivered (says the Wolverhampton *Chronicle*) of two dead children, who had grown together and were united at the lower part of the stomach.....Mr. Erichsen, Professor of Surgery in University College, London, has been appointed Dr. Lee's reader in Anatomy in the University of Oxford..... A dentist has been lately elected to St. George's Hospital, London; the *lucky* gentleman is a Mr. Vesey, of Bond Street. He was selected by ballot from six candidates.

THE

MEDICAL CHRONICLE.

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ORIGINAL COMMUNICATIONS.

ART. XXX.—*A Poisoning-case from Haschish*, with Notes. By WILLIAM WRIGHT, M.D., L.R.C.S.E., Professor of Materia Medica, McGill University, Physician to the Montreal General Hospital, &c.

From the rarity of similar occurrences, at least in Canada, I have been induced to record the following instance of poisoning by Haschish. It happened, during the last month (March), to a much-esteemed friend whose only fault was in the love he bore to science. He has increased its interest by having kindly favored me with the narrative in his own words.

"I was much interested some time since in the extraordinary tales related of the Cannabis Indica, and felt curious to experience some of its effects myself. With this intention I took at various times several doses of the Churrus or resin, and also of the extract or Haschish, commencing with one or two grains, and increasing the dose gradually to ten or more, without producing however the slightest perceptible result.

"As there could be little doubt of the purity of the preparation,—it being obtained from the well-known and highly respectable firm of Morson & Co., London,—I concluded that it must either have lost its virtues by keeping or that the power of the plant itself must be much exaggerated. Conversing with a physician, a few days ago, on the subject, who entertained a different opinion, I swallowed in his presence about 15 grains

of the extract to convince him of the sincerity of my belief.* About two hours and a half afterwards I was reminded of the almost forgotten circumstance by a strange and sudden sensation of warmth at the pit of the stomach, which quickly extended over the whole body. At the same time I became considerably excited and talkative, and with difficulty restrained a strong inclination to violence. These symptoms quickly and completely subsided. After the lapse of a few seconds, without any warning, the blood seemed to rush violently to my head, the heart beat rapidly, my mouth and throat became perfectly dry, and I entertained a painful sense of suffocation. In a few minutes, after a succession of such attacks, the interval of recovery growing shorter with each, I grew very faint; the power of moving my limbs seemed to be deserting me; I could scarcely speak, and felt certain that death would quickly terminate my rash experiment. Up to this time I had been able to control myself, and to resist the wild suggestions which thronged through my mind. But now, completely overpowered, I seemed like a cork floating up and down, now gently, now swiftly, through space. Then I was a balloon, gradually expanding as I filled with gas, till, becoming more and more buoyant, I suddenly, with a feeling of ecstasy, shot high up through the air. All at once I began to feel cold, and lo! I was an immense iceberg floating about on a calm sea. These illusions, however extravagant, were of a far more real and substantial character than is usual in ordinary dreams, and up to this period were rather of a pleasant nature than otherwise; there were short intervals of partial recovery, but the sense of buoyancy or floating prevailed throughout. These however were now replaced by others of a character so different, that for some days after my recovery I could not shake off the painful sense of dejection they left behind;—I was whirling through an ever-changing scene, sometimes along the course of rivers, sometimes through thick dark forests, sometimes in well-remembered houses. At first I struggled hard to resist the power which seemed hurrying me on; but at last became calmer, and began to enquire *where* and *what* I was. Was I dead? I had no body or form, and could touch nothing. I concluded I was dead, and vainly tried to remember how and when I died; and as I experienced a very distressing sense of isolation and unrest, with a burning pain which I could not refer to any part of my being (caused, I

* The same extract had been the subject of our talk from having appeared to evidence, in the person of another of my patients, a potent action in a single dose of two grains. To decide the improbability of this opinion, the *experimentum crucis* was voluntarily made.—W. W.

suppose, by a blister which was applied to the back of my neck), I was convinced that I was entering on a state of suffering, which, though at the time not insupportable, would be ever becoming more painful. Ages passed away, through which I was still rushing on with a feeling of helpless despair.

"At length I knew I was lying in bed ill. In vain I tried, again and again, to recollect the cause of my illness; my imagination suggested many explanations, but the true cause never once crossed my mind. At last the pain in my neck arrested my attention, and all at once I seemed to recollect that I had been shot in the back of my head, and thought I must be now in a state of delirium. It appeared to have happened a long while ago,—many years. I seemed to fall asleep occasionally, and was much puzzled that I always awoke in the day-time, apparently about the same hour. These intervals of sleep or complete unconsciousness could not in reality have lasted many minutes, but to me they seemed days. I cannot describe the painful earnestness with which I struggled to recover my recollection of what had really happened. About three hours from the time I first became affected, I began dimly and imperfectly to recognize objects around me; they became gradually more and more distinct, and at length I was myself again, but with bewildered feelings as if I had just risen from the dead.

"So far as my experience goes, the sensations arising from the use of Cannabis Indica are most frightful, and nothing should induce me to repeat the experiment."

Notes.—The length of time that intervened between the ingestion of the dose and the manifestation of the symptoms is important to observe. The circumstances were not such as to explain it. The substance was taken upon an empty stomach, four hours or more after breakfast, and the symptoms did not supervene till sitting down to dinner, two hours or more afterwards. In the meanwhile he had continued his usual avocation, and had engaged his mind with its pursuits. Indeed, he had, so to speak, forgotten his recent experiment till reminded of it by the dangerous consequences that suddenly, though remotely, appeared. Generally the symptoms are late in occurrence in poisoning by cannabis, seldom succeeding before an hour has elapsed from its administration. But the retardation here was unusually protracted. In consequence, when called upon to treat him, the ordinary indication of provoking emesis—which it is desirable to fulfil in most cases of toxication—did not suggest itself for practice. The substance I conceived had already been removed from the stomach, and was then more likely to be in process of excretion than of absorption. Accordingly an opposite line of treatment

was pursued. Effervescing sodaic draughts, with small doses of antimonial wine, were exhibited from time to time, and appeared decidedly beneficial by promoting the restoration of secretion, and thus aiding in the depuration of the blood of the deadly narcotic which was circulating with its living elements. At first the mucous membrane of the tongue and mouth generally, as well as the skin, was dry; but both moistened as recovery progressed. The urinary fluid was also rather deficient. Another advantage which the medicinal combination, above mentioned, seemed to afford, was in keeping under a salutary level a tendency to inordinate vascular excitement of the arterial system generally, which was shewn not so much in the entailment of increased frequency in the rate of its circulation, as in the super-addition of an augmented degree of relative power; but of this I shall speak again. The only other remedial expedient had recourse to was the application of a sinapism to the nucha, and its subsequent repetition. No true antidote has yet been discovered for cannabis, and, admitting the possession of such an agent, its use was precluded in the present, and I believe would also be in the majority of cases, in consequence of the long time that passes away before the letheon brings out its effects; for whatever may be the utility of an antidote when opposed to its bane in the gastric cavity, it becomes powerless once absorption has been effected, and even though it might be supposed capable of overtaking the poison, while in transit through the system, its virtues would be rendered nugatory by the controlling influence of vital functions, which are directly averse to all chemical combinations or decompositions ensuing within the vessels, during life, between inorganic substances, introduced from without, that are not amenable to assimilation. Nevertheless the contrary has been vainly supposed by some writers.

Few facts are more remarkable than the astonishing influence which apparently indifferent substances, in trifling quantities, are capable of exercising over the intellect and feelings of man: like the creature of a passing fancy, his happiness may owe its existence to the most improbable sources. "It may be purchased for a penny and carried in the waistcoat pocket." The wretch, whose hopeless life is a burden, may procure from his deceptive stimulus, a joy that the dull realities of existence never could have afforded. Nor is the example of this kind of sustenance confined to a few,—the outcasts of despair,—as it might be supposed. Indian hemp forms but one of the five great narcotics which have become articles of national consumption, and it is far from being the most extensively used, yet on it alone depend between two and three hundred millions of human beings for their pleasure. The condition of mind it

produces is characterizod by several peculiarities. As attentively studied from the present case, they seemed to be—

1. An exaltation of the impulsive propensities creating a preparation to perpetrate violence upon provocation; the excitation being vastly disproportionate to the act, so that under no circumstance could the latter be extenuated by the former. The will is to a certain extent, under the subjugation of impressions communicated from without, and, the reasoning also being impaired, true occurrences are distorted and falsely interpreted, with an invariable tendency to amplification, magnifying under increasing examination like pictures in the field of a stereoscope. The Haschish-eaters of the East betray this moral obliquity in a very decided manner. The shocking atrocites committed not many months ago by the Delhi rebels had probably a foundation in cannabis. Of the notorious Old Man of the Mountain it is thus recorded:—Taking the Count (Henry of Champagne) to the top of a high tower where were stationed guards in white robes. "I doubt," said he, "whether you have any subjects so obedient as mine," and, making a sign to two of the sentinels, they precipitated themselves from the height, and were dashed to pieces. Summoned at an another time by an envoy from a powerful enemy to submit himself, the sheik called a soldier and ordered him to kill himself, which the man unquestioning did. "Tell your master," said the old man to the wondering envoy, "that I have sixty thousand men who will do the same." In fine, Haschish induces for a time a partial moral insanity, in which the impulses developed have a murderous tendency,—either homicidal or suicidal, though generally the former.

2. A loss of individuality. The free spirit is no longer confined or trammelled by its corporeal tenement. Body, for the time, has no personality, and the existence, solely experienced, is immaterial or etherial. The nerve substance of the brain seems paralyzed, and does not contribute its accustomed support to the substantiation or rectification of objects received through the special senses; or when these are unexercised, as in dreaming, the false creations of the struggling mind are not corrected by an application of consciousness. There is a remarkable buoyancy of feeling, and an exemption from the perception of ordinary physical clogs, so that, as in the above case, the idea that takes strong hold of the individual is that he is a spirit. The same hallucination occasionally manifests itself under another form, in which still the predominant feature is a belief in the possession of capabilities inconsistent with material organization. A gentleman while under Haschish thought himself a locomotive, and of whom it is said, that he, for the space of

two or three hours, paced to and fro in his room with measured stride, exhaling his breath in violent jets, and when he spoke dividing his words into syllables, each of which he brought out with a jerk, at the same time turning his hands at his sides as though they were the cranks of imaginary wheels; and who, arising to taste water from a pitcher, set it down with a yell of laughter, crying out, "How can I take water into my boiler when I am letting off steam!"

3. Closely connected with the preceding illusion is another as regards the computation of time. The mind under Haschish forms no correct estimate of time,—seconds may extend themselves into years, and minutes into centuries. While watching the progress of his case, my friend woke up after a short reverie of a few minutes duration, and, without any reference to antecedent associations, for they had probably rolled far away into an interminable vista of oblivion, he gravely assured me that since then, the period when he had taken up his last wondering tale, two thousand five hundred years had come and gone; while in verity his watch had scarcely sounded one tenth the number of ticks!

4. A proclivity to extreme hilarity or laughter is established, rendering the patient ridiculously susceptible of the least humor, and causing him to exhibit his unwarrantable appreciations in an outrageously absurd or silly manner. The desire for laughter is often irresistible, and, even when not incited, peal upon peal of baseless merriment may astound the ear of the astonished beholder; at other times the exhiliration may give itself vent in a jovial song, loud shouting, or energetic dancing, or some other equally extravagent action. About the time of the occurrence of the above case, I had prescribed ext. cannabis to two other patients. One, a gentleman, who took a pill containing two grains three times a day. A short time after the first he said he got into a sort of hysterical state ready to laugh at anything, and with a constant inclination to giggle and behave unseemly. At the same time his eyes felt as if too large, and altogether strangely curious. He persevered in the use of them for over a week, as he derived great benefit from the symptoms for which they were ordered; but he assured me that although the effects first experienced never recurred, yet he had always, more or less, a feeling of slight intoxication till he discontinued taking the remedy. The second was a lady to whom it was prescribed in half-grain doses; and I considered that I could subsequently detect in the slight veil of unusual cheerfulness, over-spreading a naturally amiable countenance, the delusive power of Haschish. In the original case, or that first narrated, this proclivity was not so marked as might have been expected. I

saw but slight traces, and these only occasionally : on the contrary, there was rather a painful character attached to the delusions, which is altogether unusual. As with other narcotics the exact effects will be dependent upon modifying causes as idiosyncrasies, national peculiarities, &c. Furthermore, his mind appeared to be in an alternating condition between excitement and sadness,—which states invariably followed each other. The first was of short duration, not lasting more than a few minutes, while the latter would persist for at least a quarter of an hour before being broken in upon by its less sombre successor. These two phases were accompanied by corresponding changes in the pulse,—it being always quicker and stronger under the first specified.

5. The other observations made upon his psychical disorder were, that for about the first three hours, after its setting in, he was in a dozing kind of state, easily awakened by any noise such as that of ordinary conversation. Frequently he woke himself up. It was upon being thus aroused he declared his phantasms. He rapidly after fell into a sort of sleep, and never continued insensible beyond 10 or 15 minutes. It appeared natural, and was not accompanied by any stertor of respiration nor turgescence of the features. The pupils were however dilated, and the retina had lost its natural susceptibility to the stimulus of light. After the end of these three hours, his sleep became more normal, and he gradually exhibited symptoms of decreasing disturbance. Afterwards I did not see him till about as many more hours had expired. He was then awake and rational, and had emerged from his Haschish-dream.

The dose had exercised a decided interference with common sensibility; ordinary perception was in a measure deadened, and there was a partial anæsthesia of the cutaneous surface, and yet sensation was positively acute, so much so as to be accompanied with feelings of actual pain. A slight pick or quick pinch gave no response; but a more extensive or prolonged irritation, as from continued pressure, was felt, and subsequently remembered. He told me afterwards that he experienced great pain from touches, &c., which at the time he did not complain of or, as might be imagined, he was incapacitated from objecting to. Pain existed, then, although it could not be resisted. Its endurance was borne by the patient, while the observer presumed he was unmindful of it.

The heart and arteries appeared to be specifically affected. The pulse possessed a strong full tense character, the vessel conveying to the finger a pseudo-cartilaginous feel, as if the tonicity of its organic contractile coat was powerfully stimulated. Upon recovery he complained much of a feeling of painful constriction about the heart, and of pain in his wrist which was brought on by slight compression of the pulse. There

was no capillary engorgement nor over-action,—no texture nor organ evinced symptoms of determination of blood; nor were there signs of venous congestion discerned in any part. The action of cannabis on the vascular system is, probably, one which, if better established, might be turned to great practical benefit. It is in conformity with the experience of Dr. O'Shaughnessy of India, to esteem this remedy as an arterial stimulant well adapted for reviving the failing energies of the circulation, and for conducing to the establishment of re-action in cases of collapse. In recording his investigations with it in Cholera, he states that "He has known the pulse and heat return, and the purging checked, by a single dose. In one case of Collapse, the patient revived immediately upon taking the remedy."

The above case is also interesting in a negative way. It was not marked by several phenomena that have been witnessed in others, such as catalepsy, aphrodisia, &c.

And lastly the reader is reminded that the word *Haschish* is employed in this communication to designate an extract of Indian hemp, prepared by Morson of London, and procurable in this city at Messrs. S. J. Lyman & Co., Place d'Armes. The distinction is the more necessary, for the same name is given in some places to an extract from Gunjah, obtained by boiling it in butter; and has likewise been applied to the tops and tender shoots and pistils of the flowers of the plant, in contrast to the larger leaves and capsules which are known, orientally, as bang, or in the language of Dr. Wood, (Pharmacology) *bung*. While a nearly identical term, *hushish*, is assigned, according to Avicenna, by the Arabians, to an inebriating substance prepared from the bruised leaves.

ART. XXXI.—*Cases in Surgery.* By D. C. MacCallum, M.D., M.R.C.S.L., Professor of Clinical Surgery, McGill College; Surgeon to the Montreal General Hospital, &c.

No. 4.—*Acute Tetanus from Frostbite ending fatally on the Seventh day.*

Tetanus is a disease rarely met with in Canada, being more unfrequent even than in Great Britain and Ireland. The number of deaths from this affection, as compared with the number of deaths from all diseases occurring in London during a period of four years, (1850-3-5) exhibits the ratio of 1 to 3075. There were 328 deaths from tetanus in Ireland during the twenty years intervening between 1831-51, whilst the total deaths for the same period numbered 1,187,374; the proportion being, therefore, 1 in 4987. In New York the proportion is as high as 1 in

578, whilst in Bombay it is 1 in 46. From the Census Returns of Canada we learn that two deaths out of 12,336, the causes of which were ascertained, were occasioned by tetanus; a proportion of 1 in 6168 only. In the following case, the notes of which were taken by my friend, Dr. Craik, the principal point of interest is the condition in which the posterior tibial nerve leading to the right foot was found; the foot that was most injured by the effects of cold, and from which the toes had to be removed. Were I to meet with another case traumatic in its origin, or one arising from frostbite, I would certainly have recourse to a method of procedure already recommended, viz., division of the principal nerves leading to the injured part.

Charles McKeon, aged 20, an Irish laborer, was admitted on the 11th of March, 1857, by Dr. MacCallum. Both his feet were badly frozen—especially the right one—from his having been exposed on the previous night while travelling. He was a healthy-looking man, about 5 feet 9 inches high, light complexioned, and somewhat muscular. He had been in the habit of using intoxicating liquors occasionally, "going now and then on a spree," but did not use them habitually. His temperament seemed to be somewhat of the melancholic, and his manner reserved, almost approaching the morose. His general health had always been good.

The frostbitten parts followed the usual course. Three toes on the right foot were positively dead, and considerable ulceration occurred in the other toes of the same foot, as well as in two or three toes of the other.

The line of demarcation formed in the usual time, and it became sufficiently evident that the three first toes of the right foot should be removed. It was deemed, however, unadvisable to interfere for a few days, on account of the presence of erysipelas in the wards,—which had broken out about the time of his admission.

There being no apparent motive for hurry in the case, it was allowed to remain without any other treatment, except a poultice at first, and water dressing afterwards, until the 30th of March, when, the erysipelas having completely subsided, the three toes were removed at the metatarso-phalangeal articulation.

Nothing unusual was observed at the time of the operation, excepting that the spasm which frequently precedes insensibility during the administration of chloroform, seemed more severe than usual. Very little attention was paid to this at the time, but it was afterwards discovered that the symptoms of tetanus had been present from the previous day.

On the morning after the operation (Tuesday, March 31st,) while Dr. Craik was making the usual round of the ward, his attention was arrested by the peculiar expression of the patient's countenance, so characteristic of tetanus; and on interrogating him it was found that he was unable to open his jaws more than about half an inch, and he complained of pain and stiffness at the root of the tongue, extending down the neck. These symptoms, that is, pain and stiffness at the root of the tongue, &c., he said had first showed themselves on Sunday, the 29th of March. The first thing he felt was a soreness and weight in the back and limbs, followed by the stiffness in the muscles of the jaw and throat. Towards the evening of the same day he felt pain in the epigastrium and in the back of the neck, but none of the symptoms were sufficiently severe to induce him to mention them to any one; even on Monday, when the toes were removed, he said nothing about them, thinking—as he afterwards said—that they proceeded from a slight cold, and would soon disappear. At the time when attention was first drawn to his condition, on Tuesday morning, he was suffering considerably, principally from the pain at the epigastrium. He was also beginning to experience some difficulty in swallowing, which he had not noticed before, although on strict enquiry he admitted that it had existed in a slight degree from the first day of the attack. There was very little febrile action, the skin was moist, the temperature a little higher than natural, the tongue slightly coated, the bowels costive, and the urine somewhat coloured. The pulse numbered 92 in the minute, and had no peculiarity of strength or fullness. He complained slightly of thirst.

At 12 o'clock, noon, he was seen by Dr. MacCallum, when the symptoms were nearly the same as above, excepting that they had become a little more severe. Directions were immediately given to have him removed to a darkened ward by himself, and to have him freely cupped over the spine, which was done to the extent of about 15 ounces. Bladders filled with pounded ice were then applied along the spine from the occiput to the sacrum, with directions to remove them if symptoms of great depression came on. 10 grains of calomel were given for the purpose of moving the bowels and acting upon the secretions. The following mixture was then prescribed; to be commenced as soon as a stool had been procured: ℞ Ext. Cannab. Indic., (Morsons) grs. xviii, Spt. Rect. ℥ j, Muc. G. A. ℥ vij, solve extractum in Spt. et adde. mucilag: Capiat ℥ ss quaque semihora. His diet to consist of strong beef tea.

8 o'clock, P. M.—The spasms became very severe after the removal into the other ward, so much so, that he was in danger of falling out of bed, and requested to have his bed on the floor. The muscles of the

back were strongly contracted, bending the body backwards-opisthotonos. After the cupping he was much better. His bowels were freely moved about 5 o'clock, and he has been able to swallow some beef tea. Complains a good deal of pain in the abdomen, which feels remarkably hard to the touch. By a great effort he can open the mouth to the extent of about half an inch. He had two paroxysms before the cupping, and one less severe since. He swallows with difficulty. Pulse 102.

Wednesday Morning, 9 A.M.—Passed a restless night with several severe paroxysms. Is now a little easier. He can open his mouth to a greater degree, and swallow, but with difficulty. Perspiring freely. Tongue cleaner than yesterday. Had a stool early this morning. Pulse 110 and weaker.

12 o'clock, noon.—Condition the same as above. The extract to be increased to four grains every hour, watching its effects. He asked for wine, which was allowed him.

Thursday, 9 A.M.—Had a good night. He slept between two and three hours. The paroxysms are much mitigated, and he swallows without much difficulty. He has taken two pints of beef tea since yesterday at noon. Pulse 102 and moderately full.

12 o'clock, noon.—Condition the same as above. No appearance of narcotism. The dose of the extract to be increased to 8 grains. Continue ice to spine.

8 o'clock. P.M.—Somewhat restless. He has had some severe paroxysms. Pulse 120. Perspiring freely.

Friday, 9 A.M.—Spent a tolerable night, slept 3 hours, swallows without difficulty. The paroxysms, though not very violent, affect the muscles of the trunk and inferior extremities more than formerly. Pulse 108 and rather weaker.

Noon.—Same as above. The foot was dressed and found to be healing kindly. The dose of the Cannabis to be increased to 12 grains every hour.

8 P.M.—Moaning a good deal. Paroxysms frequent, but not very severe. Swallowing more difficult. Pulse 120.

Saturday, 9 A.M.—Restless all night; slept none. Has great difficulty in swallowing. His jaws cannot be separated at all. His breath, and indeed his whole body, exhales a peculiar offensive odor. The tongue, as much of it as can be seen, is dry and brown, and sordes are beginning to collect about the teeth. The pulse has risen to 126 and is very weak.

Noon.—Condition similar to above. Pulse 130. Give Cannabis as much as can be swallowed, and let him have 10 grains of calomel immediately.

4 o'clock, P.M.—He was thought by the nurse to be dying, having taken a severe fit while trying to swallow his medicine. He was found laboring in a severe paroxysm with the whole body bent backwards, his face purple, and the breathing stopped; the pulse was barely perceptible. A towel with some chloroform was placed on his face, and artificial respiration performed as well as the spasm would allow, until the natural breathing was re-established. The chloroform was left with the nurse, with directions how to apply it in succeeding paroxysms. From this time the paroxysms continued to return at intervals of about half an hour, until 10 o'clock, when he died exhausted *after* a severe paroxysm.

Autopsy.—40 hours after death, during the last four of which the body had been lying with the face downwards.

The Spine.—The integuments and muscles of the back contained not more than the usual quantity of blood, allowing for the effects of gravitation. On cutting through the spinal meninges a considerable quantity of limped serum was found in the cavity of the arachnoid. There was no congestion of the latter membrane. The cord itself was the natural consistence throughout, and the only observable abnormality about it was some slight arborescent redness at the roots of the nerves in the dorsal region.

The Head.—The dura mater was somewhat strongly adherent to the calvarium, but beyond this there was nothing abnormal.

The nerves near the frostbitten part.—The posterior tibial nerves were traced nearly to the toes on both feet and carefully removed and compared. That of the right foot (which had been most severely frozen, and from which the toes had been removed) was considerably larger than the left, and its structure was much softer. Upon a close examination, minute extravasations were found at different points in its substance. Portions of both were placed under the microscope, but no difference was noticed except that the fibrous structure was less apparent in the right than the left nerve.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. XXV.—*The Principles and Practice of Obstetrics.* By Henry Miller, M.D., Professor of Obstetric Medicine in the Medical department of the University of Louisville. With illustrations on wood. Philadelphia: Blanchard & Lea. 1858.

The present work contains 16 chapters, which are devoted to the consideration of the ordinary subjects of midwifery, exclusively of the diseases

of women. A large portion is taken up with the important topic of labour, which is entered upon at the 7th chapter, and is carried through all the succeeding ones.

Under the title of "the determinative cause of labour," an inquiry is instituted into the proximate agency, which conduces to originate uterine action, or in other words an answer is put forth to the question, "What is it that excites the uterine contractions, when gestation arrives at its term?" Dr. M. adopts the opinions expressed about 35 years ago by Dr. Power, and believes it to be "irritation of the cervix, and especially of the os uteri arising from the contact of the ovum with it." This view it is considered derives support from several facts and arguments such as the following:—

1. "*The peculiar manner in which the uterine neck is unfolded during pregnancy.*"—This unfolding "is deferred to a very late period of pregnancy, until, in fact, a short time before labour sets in. What other use can be assigned for this singular deportment than that of guarding the neck from premature irritation, which might endanger the premature expulsion of the ovum?"

2. "*The rectum and bladder being excited to expel their contents by irritation of their orifices, affords strong presumption that the uterus is excited to action on the same principle.*"—"The reality of such irritation is certified to every individual by the internal or organic sensation that accompanies it; which like all other organic sensations, it is difficult to describe or accurately to locate. . . . . When this irritation acquires a certain degree of intensity it irresistibly provokes expulsive contractions of the muscular fibres."

3 Again, "*the uterus can be excited to expulsive contractions, especially in the latter months of pregnancy, by artificial irritation of its orifice.*" Accordingly "not only may parturition be induced by orificial irritation artificially excited, but when labour has commenced naturally, if the uterine contractions be languid and inefficient, they may be made stronger and more effective in the same way."

Serious difficulties we must observe in comment exist to receiving this cause "orificial irritation" as the determinative agent of parturition. For instance in many cases of premature labour when the cervix has not been expanded till *after* their instigation, this condition, in its normal or ordinary bearing, cannot be esteemed influential. Parturition at the full time is upon the above explanation, an effect of the development or obliteration of the cervix allowing the uterine contents to come in opposition with the mucous surface of the os, and by touch induce or create the muscular contractility of

the uterus; but in cases of miscarriage or abortion the cervix does not open to receive the embryonic mass until some time after the event has been in progress, and therefore the ini iatory approximation, considered essential as the starting influence, has not existed or not been active. And it by no means seems likely that a different modification of action has been present in both; both are marked or characterized by uterine contractions, cervical dilatation and orificial opening. Again, in all examples of ordinary labour before the period for delivery ensues, the cervix has been unfolded for some time, and the apposition contended for has actually occurred without being productive of any mark of commencing labour; and to suppose that a delay is necessary to allow of the maturation of the force which may be supposed to spring or arise from the contiguity of the presenting part with the unfolded cervix before that force is sufficiently powerful to be operative in evoking the customary pains is not consistent with our ideas of vital occurrence, or of the mutual relationship that subsists between organized structures and portions of the living economy. Dr. M. notices somewhat similar objections which have been urged against the notion of "orificial irritation," by Dr. Dewees, and has replied to them, but in our opinion his effort has neither been happy nor satisfactory. The periodicity of parturition and its final causes are mysteries, and at most, any interpretation we can offer with our present imperfect knowledge of the internal functions, and the intimate mechanism of the organs from which they emanate, can only shew forth the probable collateral or concurrent actions that are in process of accomplishment. We are confined to a consideration of the more obvious or secondary powers, while the springs which have set them a going are wholly beyond our comprehension. In truth, our knowledge at best is of a rough, coarse, materialistic kind or texture, and we are constrained to confess of this and similar occurrences in which the living body participates, that they are ultimate facts, follow determinate laws and take place as Avicenna said, some centuries ago, of delivery "by the grace of God;" an opinion which more recently Velpeau has adopted and promulgated, and which no amount of special pleading for the efficiency of physical causes, whether plausible or not, will be enabled to gainsay.

Dr. M's. work is illustrated by 98 figures, four of which refer to instruments constructed we believe by the author. One of the number is of a "fluid porte-caustique," and is thus described. "It is made of steel, and consists of two branches springing from a common stem, which diverge abruptly at their origin, and then run parallel with each other to their termination. The extremity of each branch is dentated, the

teeth of one fitting into those of the other, so that when they are closed by a sliding ring, they present a smooth and roundish point like that of the uterine sound. The whole instrument measures 9½ inches in length, and the handle is made rough on the side corresponding to the concavity of the branches. A pellet of lint or cotton is placed between its branches so as to project slightly at its point, which being secured by a sliding ring is wet with the medicated solution, and introduced into the uterus through the speculum." In this way applications can be made with safety to the lining membrane of the uterus when that part is in a state of morbid action. The plan, once advised, of injection is generally understood to be fraught with too much risk to warrant trial.

ART. XXVI.—*Toothache and other affections of the teeth relieved by the Electric cautery.* By Thomas H. Harding, Surgeon Dentist. London: Walton & Maberly. 1858, p.p. 40.

This method of treating odontalgic affections is well reported of, and the perusal of the interesting little *brochure* by Mr. Harding will impress the reader favorably with its merits. The nature of the apparatus requiring to be employed is thus described by the author.

"The battery is a compound one of Smee's, and consists of six pairs of plates of zinc and platinized silver, contained in six cells, which are set in action by one fluid, viz: dilute sulphuric acid. The battery may of course vary according to the choice and taste of the operator, but it is desirable to render it as elegant and as simple as possible. When I first employed the electric cautery, I used a battery of two pairs of plates in a single cell. I now prefer the larger battery of six cells, because a large battery with weak acid will last longer than a small one with strong acid; besides this, the action of the battery is more uniform and lasts much longer. . . . . The cauterizer is thus constituted:—The terminal six inches of the poles which are of copper wire plated, are supported on an ebony or ivory handle, upon the side of which one of the poles is interrupted at a particular point. The extremities of the poles are connected by a piece of platinum wire, a hundredth of an inch thick, and three quarters of an inch long, which is bent into a loop. The sides of the loop are then brought parallel and nearly close to each other without touching, and it is thus introduced into the pulp cavity of the tooth to be operated on. By a slight pressure on one side of the handle the interrupted pole is temporarily joined, and the platinum wire immediately becomes brilliantly heated as it lies in contact with the tooth pulp. . . . . In this way I have succeeded in rapidly destroying

the pulps of decayed and condemned teeth, and have proceeded sometimes after a few minutes to the operation of filling with gold, or with other suitable stoppings."

The remainder of the pamphlet is equally instructive, and is occupied with remarks upon the operation in general directions, for after treatment and a consideration of the suitable cases in which advantage is to be expected from the adoption of this particular kind of treatment. In our practice the subject is to a certain extent *extra limites*, and we leave its fuller examination to our friends of the dental art to whom we think it commends itself as affording a quick and simple means which will compare favorably with other expedients more commonly resorted to for relief from a very sore and much prevailing malady.

ART. XXVII.—*Transactions of the St. George's Hospital Medical Society.* Session 1856–57.

These transactions have been kindly forwarded us from London, through the politeness of Dr. Gibb of that city. They contain fourteen contributions in all, and upon matters of much interest to the profession. They appear to have been in the first instance read before the Medical Society of St. George's Hospital, and subsequently have been printed to give them a more durable form. We consider the practice followed in this instance is one which might be advantageously adopted by other societies of a similar character, for it is much to be lamented that communications, like these, of much worth, and the result of considerable personal exertions on the part of their authors should, after being read, unlike these, be laid aside in manuscript state, and afterwards be available to no one beyond those to whose sole possession they are confined.

CLINICAL LECTURE.

The present aspect of Conservative Surgery and the Chloroform Question, By F. C. Skey, Esq., F.R.S., F.R.C.S., Surgeon to St. Bartholomew's Hospital.

Gentlemen.—I don't think I can better begin a Course of Clinical Lectures, which it is my duty to deliver in this theatre during the new year, than by making some few remarks in reference to what is called in the general *parlance* of the day, "Conservative Surgery." By conservative, or curative, surgery as applied, in the first place to injuries of joints or limbs, I wish to signify that practice in surgery which, in the hands of some one surgeon, leads to a conservation or saving of a limb or

joint, as contra-distinguished from another practice, which, in an entirely similar case, sacrifices the same joint or limb by amputation. By "conservation," or some such term, we properly signify the recognition of the power of Nature to repair what may appear otherwise beyond repair, and it obviously implies on the part of the surgeon a deeper knowledge or experience of the subtle, yet marvellous, powers of Nature, engaged in such processes, as well as an instinctive recognition of these processes and the point where Nature is assisting us, and proving herself a true *vis medicatrix;* or where, overborne by sundry morbific agencies, Art, even at any cost of mutilation, must come to the rescue.

And this "conservative" surgery is no mean or little thing; it engages the moral feelings as well as an intellectual analysis of the surgical facts that have previously come under your notice—for I now take it that you will all and each of you be one day or another embarked in surgical practice—both, mind you, are indispensable, the moral feelings and the intellect, nay more, we must in a measure, make each case our own, and sympathise with our patients, if we wish to master each case presented to us.

A man properly imbued with the idea of curative or conservative surgery must calmly study Nature, he must forget self-interest. Oh! do not for mere *eclât* of operations, as do some, commit some crime—I was almost inclined to say, do not do anything to your patient, be he rich or poor, that you would not after the gravest study wish to be done to yourself in similar circumstances! That, indeed, must be your guiding rule in all your medical intercourse with the sick, but more particularly in this department. Remember if you save a man's arm to him it is almost equivalent to his life, as it is the means by which he lives.

But you are young, and you say, "Why all this, the surgical profession is surely an honourable profession?" and you read the journals, and "we are all honourable men!" Be it so—that is drawing it very mild at any rate. Mark! I make no imputation against the great operators, but while human strength is mixed up with human weakness, and while the line is not well defined in surgical operations where *esprit de corps* or mere surgical *eclât* trespasses on thorough conscientiousness or honesty, while error is likely to prevail, then it is your duty to keep yourselves properly instructed in what the lessons of experience everywhere are teaching us, and to what principles of surgery the "finger-posts" of statistics are pointing.

You may depend on it that Nature has a disposition to effect singular cures if we only did not thwart her designs. Nature is usually at work building up healthy tissues. I believe this is evident in a large majority of

surgical cases Look at a broken bone uniting. Sometimes, no doubt, there was side by side with such healthy physiological action a certain pathological or diseased action or element, but let us take care that we do not encourage the latter in place of the former; say that we bleed in a fever where we ought to give wine, then the disease gets a-head; or say that a patient dies of amputation or resection, where such operation was unnecessary.

If you believe with me that there is this tendency to mistake many things in Nature's work for something pathological; that from *esprit de corps* we take for granted Nature is going pathologically wrong as often or oftener than she goes physiologically right, yet if I can show you this is an error, surely there must be something in our conservative surgery that deserves more than a mere passing notice.

Let us take care that this so-called *esprit de corps* does not alienate the public too much from us. Bacon made this remark a very long time ago. It is as true now as it was then.

All very well! But what evidence can I bring that Nature, as we find in her hospitals, is not always going wrong? I now remember the wards of St. Bartholomew's Hospital for a period of about forty years, and if I look back at amputations, for instance, I find they are diminishing in number year by year. What is the secret of this? I'll tell you. Nature now cures hundreds of cases that were formerly mutilated and amputated. Do you think we have in this department yet reached the goal, that we have nothing like steel or cod-liver oil in strumous cases, for instance, totally unknown forty years ago, yet to be discovered? Is chloroform nothing?

But what a melancholy thing it is that some surgeons still adhere to old routine. You will be astonished, perhaps, that there is no standard practice in our sixteen or eighteen London hospitals. The public does not know that even with this *esprit de corps*—of which we make so much ado—that the leg which is saved in hospital A is cut off and few questions asked at hospital B, C, D; ay! we're "all honourable men," save perhaps at hospital E, or put in orthopœdic training, but cut off at F, G, H, I, &c. Is it not our duty to society to save limbs, to cure aneurisms without cutting operations, to take advantage of chloroform, &c.? To society did I say? Here a man feels the blighting influence of this so-called *esprit de corps;* he is out voted in consultation, and by apparently wise heads; he must not infringe old routine or the stereotyped rules of years! But I tell you, and you may rely on what I say, our first duty is to society, though it may ill understand us; our next, ay, *longo intervallo*, our next duty is to our Profession!

I am sorry to say, too, that the more remote the distance from London the worse do things appear to become, so firmly rooted do old prejudices keep their hold where once they have been implanted. In our small provincial hospital, with forty surgical beds, I have recently known there to have been more mutilations or amputations in one year than there were in the same year (of twelve months) in all our 340 surgical beds in St. Bartholomew's. The fear of using chloroform, another error, adds to the horror of such old-world wisdom.

All professions, perhaps, even to the judges on the bench, are "infirm of purpose," if it comes to be a matter of common sense *versus* some old precedent or rule, in other words, a matter of *esprit de corps*. Still even this latter must occasionally yield to the public learning things themselves.

There is no large or capital operation in surgery that is not undergoing a change in the direction of greater simplicity. Where are our pullies in recent dislocations of the hip? What improvement ever equalled that of the introduction of chloroform of anæsthetics? Pain abolished at one glorious sweep; you know that even within your own memory, let cavillers say what they please, it has become the recognised practice of all good surgeons in America, Asia, Europe, to administer chloroform. Let no silly errors persuade you to the contrary! Again, look at injuries of the skull and the use of the trephine, where formerly it was used on every occasion (realising the lines to Sidrophel,—

"He used trephining of the skull
As often as the moon's at full."

where formerly we were told to anticipate symptoms), now the trephine is scarcely used at all, in Germany it is entirely condemned.

Let us take lithotomy operations again, and compare them with lithotrity. Yet though the appliances and means of lithotomy are more brilliant or improved (I now speak of the lateral operation), the deaths are at least 30 per cent.; those of lithotrity, which is superseding it in private practice, are only 5 per cent.

Does the conscientious surgeon treat surgical aneurisms now in the same manner that surgeons of the last century did? No! We have been compelled by the facts brought forward by the Dublin surgeons to adopt the mode of cure by compression; it is not so brilliant or full of *eclàt*, yet it is eminently conservative and saves many valuable lives. Some London men say they like a cut at their cases, but the short and best cut of a case of aneurism is to cure it, and that is effected by pressure; the amputations and deaths after ligature, even for poplitcal aneurism, were something terrible and enormous a few years ago; now we hear of internal aneurisms cured by specific methods!

Old dislocations are now reduced in people of advanced years, even at sixty, though Sir A. Cooper advised the opposite, and in the manipulation of other cases under chloroform it is marvellous what may be done. These are the cases that will make or mar you in practice.

As to the special subject of saving limbs after surgical injury, such as compound fractures with and without injury of vessels, I wrote a paper in 1855. I am every day more and more convinced of the force of the truths I then enunciated; I will not go with much detail into it.

If a limb be cold or mortified and vessels impaired there can, of course, be no second opinion as to the propriety of amputation, but I take cases on the confines of this extreme condition, and I ask myself very often, shall I amputate or not? Fifteen years ago I had a great deal of night surgery at this hospital, I may say I lived next door, and I have had many a half hour's walk up and down the quadrangle—half-hours of agony, thinking shall I amputate or not amputate? A hand and forearm of a patient is sometimes fractured by machinery, by a printing press at night—the old rule, I now firmly believe, "more honoured in the breach" than in any, even at least slavish observance, was always to amputate, and mind, in doing that, you take away the working man's right hand perhaps; now that is a serious matter! We infringed the rule, and the infringements or errors of old rules taught us a great deal. I was every year more and more fortified in my opinion, now fully established, that you are not called on to amputate in almost any injury of fore-arm and hand. Nature will repair the mischief herself!

Take again diseases of joints, and what do we find? What has the last ten years taught us? That you cannot have anchylosis without removal of the encrusting cartilage of such parts as the head of the femur or humerus, &c. This is not disease, it is Nature's own curative surgery; yet how are we every other day frightened at the words "ulceration of cartilages." Have you never seen this part finely injected with size and vermillion? If you have, you would see a beautiful ring of granulations marking out the process of absorption, and thus, *pari passu*, marking out Nature's conservative surgery. Yet how many dozens of knees do we see amputated, or ankles removed, because we mistake a healthy reparative process, tedious it may be, for a diseased state.

But I come back to the subject of compound comminuted fractures. I do not like to lead the advanced guard of ultra-conservatism. I see a good deal of small surgery, but though heterodox in a 'clinical,' I wish to teach you leading clinical principles, not small surgery. But I will give you a case; there is nothing like a case—it is a sort of diagram. A man was brought in, Nov. 5, with a very bad and formidable laceration

of fore-arm, the radius comminuted,the extensor muscles scooped away, the interosseous ligament and so-called interosseous artery (it's not an inter-osseous artery at all, by the way,) all injured, he had a Guy Fawkes explosion. burning and destroying his arm. What was to be done? The students came crowding down for an operation; he had some amount of extension and flexion in the fore-arm. Well, I simply cut away all the jagged parts, I placed a splint over the front of the fore-arm; he has now a useful arm, but mind, if he had not had extension and flexion it would be useless to try to save the parts. Here "antagonism," whatever it be in the moral or Guy Fawkes world, is every thing to be desired. He had his supinators, else I would have amputated: it would never do to leave him a hand all flexors, bent like a bird's claw.

You have heard also, no doubt (any of you industriously reading up for the college, at least), of "primary" and "secondary" amputations. Well, there has been a great deal written on this subject and, as it is made to bear on conservative surgery, it is good in its essence, but it is impracticable. I have often explained why I don't believe in it. It may answer on the field of battle, where the surgeon is here in a trench to-day and ten miles off to-morrow. I believe it is ridiculous in civil hospitals, for I say if a man is not operated on till the termination of six hours why not give him 24, ay and 48 hours. In such cases I would say, in one word —Do not take off limbs too soon, watch the case, watch it, that's the secret. I fought a case here the other day, I said give him 24 hours, and then three days: I will not tell you the result—but that is the principle. I want you now to observe for yourselves, and take this with you, that in the last ten years there is happily growing up more tenderness and sympathy for patients; there is more humanity amongst the true and great surgeons.

If we felt for patients more it would be no harm. I had a joke with Sir B. Brodie a little while ago. He went out of town somewhere and happening to meet with an injury, he dislocated his humerus. "I am so glad, Sir Benjamin," I said to him, "as the Fates would have it so, that it occurred to such a good observer; you can now sympathise with patients and tell us all about it; I am glad at any rate, it was no worse." He laughed. "I agree with you," he said, "we do not sympathise enough with our patients. I don't exactly see the force of your congratulation, at least in your way, for I assure you it was horribly painful."

I would say to you, in conclusion, it is your duty, it is your mission and there is no more noble one to save limbs and to save life in every possible manner you can: the sooner you forget mere personal *eclât*

the better. Take care that much of the *esprit de corps* I speak of is not pride and self-esteem.

You may rely on it, considering our increasing knowledge of therapeutics, that we have not yet tested Nature's own conservative surgery enough, and that we deprive Nature of much of the credit that is justly her due.

THERAPEUTICAL RECORD.

Ill Effects of Ferruginous Mineral Waters upon Lactation.—M. Stanislas Martin observed at Chateauneuf in Auvergne, that gallinaceous and ruminant animals were exceedingly fond of the ferruginous waters, but that these exerted the mischievous effect of drying up the milk of the cows. Wishing to see whether this effect extended to the human subject, he induced a young mother to make use of some of the strongest of those waters during several days; and the result was that if she had continued to drink them, all her milk would have disappeared. From this fact, among others, he cautions practitioners against prescribing ferruginous substances for nursing women, and when their employment seems clearly indicated.—*Bull. de Thérap.* Dec. p. 554.

Oxide of Zinc in Profuse Sweating.—Dr. Jackson has had repeated opportunity of confirming the utility of this substance in the nocturnal sweats of phthisis. He freely gave it whenever there was sweating enough to call for treatment without regard to the stage of the disease. Seven grains were generally (sometimes ten) given at bed time, and if necessary, the dose was repeated every few hours. He has also tried it with success in violent nocturnal sweating in intermittent fever, and in the sweating of acute rheumatism.—*Boston Journal*, vol. lvi. p. 294.

Tartrate of Antimony in Colic.—Dr. Puffer states, that having employed enemata of tartar emetic with good effect in several cases of rigid os uteri, he was induced to extend the same practice to a case of obstinate colic. About three grains were administered in eight ounces of sweetened water; and in about 40 minutes the obstruction yielded without any apparent additional nausea or prostration, the patient rapidly recovering.—*Ibid.* vol. lvi. p. 326.

Ergot of Rye in Phthisis.—The Italian practitioners continue to publish from time to time instances in which this substance has been used with great advantage, employed as recommended by Dr. Parola. Dr. Rossi now relates four cases in which, after subduing inflammatory complications by antiphlogistics, he gave with success from 10 to 20 centigrammes per diem of the ethereal resinous extract of the ergot.—*Omodei's Annali*, vol. clxii. p. 216.

Glycerine in Dysentery.—Dr. J. Daude, of Marvejols, in France, praises the effect of glycerine in dysentery. He has employed it with success in several cases during a severe epidemic of that disease, giving it in enemata or by the mouth. As an enema Dr. Daude recommends a fluid ounce of a decoction of linseed or of bran, which should be given twice daily. For a potion, one fluid

ounce and a half may be mixed with three and a half fluid ounces of water and orange-flower water, equal parts, and of which a large spoonful is to be given every two hours.—*Union Médicale.*

Florogene, the active principle of the appletree bark, has been used by some of the physicians of Cincinnati, and they report flattering success. Dr. March, of that city, has been very enthusiastic in its support, as a substitute for quinine; also Dr. James bears like testimony. They say if any of their friends desire to test it, it can be found at Dr. Chapman's, and that it is desirable as a matter of economy. The doctor also prepares a fluid extract of florogene, which he regards as a preferable remedy, given in teaspoonful doses.—*Transactions of the Belmont* (Ohio) *Med. Society.*

Cocoa-nut Oil Ointments.—The cocoa-nut oil is a more eligible body for the formation of ointments than lard, keeping much better, not staining the linen, and admitting of more complete absorption. To render the oil of commerce fit for pharmaceutical employment, it is in general sufficient to liquify it at a moderate temperature, and strain it through linen. But if it retains its peculiar odor too strongly, and is of two yellow a color, it may be purified by digesting it for some hours in a water-bath, with some coarsely powdered vegetable charcoal, and filtering it while warm through paper. The following are some of the formulæ that have been tried with success:—℞ Iod. pot. ʒ j., ol. cocoa, ℥ j, ℞ Ext. bellad. ℈j., ol. coc. ʒ iij.; ℞ Veratrini, gr. iij., ol. coc. ʒ iij.; ℞ Sulph. quin. ℈j., ol. coc. ℥ j. ol. rosar. gt. x. (very useful in pityriasis capitis); ℞ Chlorof., ol. coc. aa ℥ j. (of great service in neuralgic and rheumatic pains, rendering the chloroform more fixed, and its action more durable); ℞ Ol. terebinth, ol. coc. aa ℥ j.; ℞ Hydr. ox. rub. gr. iv., ol. coc. ʒ ij.—*Omodei's Annali.*

PERISCOPE.

Effect of the Continued Application of Cold Water Externally upon the Circulation. By Dr. H. Bence Jones, and W. H. Dickinson, Esq.

Opportunities of making use of some douche and shower baths of more than ordinary potency having presented themselves, the following experiments were undertaken, with a view of removing some of the uncertainty which now prevails regarding the effects of the outward application of cold water. These experiments are divided into three sections: 1st, on the general effect of the douche or shower bath; 2nd, on the effects of the shower bath at different temperatures; 3rd, on the effects of the shower bath in different circumstances.

Sec. 1.—The first experiment was made by a douche bath, by which 225 gallons of water were allowed to fall upon the head for a quarter of an hour. By this the pulse was greatly relaxed in frequency and power, and it became irregular; at one period of the experiment the reduction

amounted to 30 beats in the minute. The second experiment was made with a shower bath delivering about 20 gallons of water a minute—upwards of 300 gallons in fifteen minutes. The results were similar to those obtained with the douche bath, but were more marked. During the second minute the pulse was found to be less frequent by 40 beats than it had been previous to the fall of water; and from the fifth minute to the fifteenth, when the experiment terminated, it was observed to be frequently intermitting and very weak. The third experiment was made with a still more powerful shower bath, at Vienna. This delivered nearly 38 gallons of water a minute—upwards of 550 gallons in fifteen minutes—but the openings in the rose were very fine, and the shower was much spread. In the fourth minute the pulse was found to be imperceptible, and during the remainder of the quarter of an hour for which the bath was continued it was feeble and irregular. Afterwards the pulse was observed to be smaller and rather slower than it had been previously, but it was immediately restored by a warm bath. Thus it seems that a strong douche or shower bath produces an excessive immediate effect upon the pulse. By the first shock it may be reduced in rate even 50 beats in a minute; it then recovers a little, but after four or five minutes, when the shivering commences, it again becomes reduced, and often is rendered quite imperceptible.

Sec. 2.—The experiments in this section were made for the purpose of showing whether the effect varied with the temperature of the water. The most interesting are two which were made with the powerful shower bath alluded to in section 1, second experiment. In the first, the water was at 70 deg. Fahrenheit. The pulse did not fall in rate for three minutes, although it lost much in strength and volume. When shivering commenced, at the end of the fourth minute, the pulse was imperceptible, and it was scarcely to be felt until the end of the sixth, and it remained weak and irregular until the termination of the experiment at the end of the tenth minute. In the second experiment the water was iced down to 50 deg. F. The effect was much more rapid. During the first fifteen seconds the pulse was reduced at the rate of 38 beats per minute; this was followed by a reaction better marked than before, and the annihilation of the pulse, which followed the commencement of shivering, was much more complete and of longer duration.

Sec. 3.—Some of the effects observed to follow the use of the shower-bath, taken under varying circumstances, are here stated. Two experiments were made: one at the baths at Ischel, in Austria, and one at the Prussian bath, at Vienna, where cold shower-baths were alternated with very hot vapor-baths. It was found that the increased action of

the pulse produced by exposure of the body to hot steam prevented that depression which would otherwise have resulted from the cold water. A converse experiment is quoted from Dr. Currie's "Medical Reports." An ague patient, who had derived advantage from the cold effusion during the hot stage of the fit, nearly died from the alarming depression which resulted from the same application while he was in the cold stage.

The general conclusions are—

1. The useful effect of a strong douche or shower-bath is the immediate depression of the pulse. By the first shock of water between 64 deg. and 68 deg. F. the pulse becomes weak and irregular, and may be reduced in rate even fifty beats in the minute. After the first shock the pulse recovers a little, but remains weak until the secondary effect or shivering comes on, when it becomes weaker and intermitting, and may be quite imperceptible. After ten to fifteen minutes the pulse remains very small and weak, and shivering continues while the experiment lasts.

2. If the shower-bath is a small one, (eight gallons,) and the person taking it in good health, no great difference is perceived in the pulse whether the water is hot (110 deg.) or warm (74 deg. F.) If the water is very cold, (47 deg. F.) the pulse becomes smaller, but the rate is not affected.

With a shower-bath giving twenty gallons per minute a difference of twenty degrees (from 70 deg. to 50 deg. F.) causes a great difference in the shock. The difference in the after-effect or shivering, is not so marked. The depression of the pulse when the shivering comes on is more continuous with the colder water, and is manifest up to the end of the experiment.

3. When the pulse is raised above, or depressed below, its healthy standard, the shower-bath or douche produces very much less or a much greater effect than would be produced by the bath under ordinary circumstances.

As it seemed possible that a part of the reduction of the pulse might be due to the action of the cold water upon the capillaries and the radial artery in which the pulse was felt, a set of experiments were made in which the forearm and hand were exposed to temperatures varying from 25 to deg. to 124 deg. F. The results of these experiments may be thus stated :—

1st. When one arm is in water at 50 deg. and the other in air at 46 deg., no difference in the pulse is observed in fifteen minutes.

2nd. When one arm is in the water at 110 deg. and the other in air at 46 deg. F., little if any difference could be felt in the same time.

3rd. When one arm is in water at 44 deg. and the other in water at 107 deg. F. there was the same result in the same time.

4th. Even one arm at 33 deg. and the other at 112 deg. give no result.

5th. Still lower and higher temperatures, 25 deg. and 115 deg. F., did not give any decided results in fifteen minutes.

6th. The douche-bath on the arm and hand, at 42 deg., produced no greater effect on the pulse than still water at 44 deg. F.

Hence, generally, it follows, that no part of the effect produced by the shower-bath on the pulse, depends on the action of the water on the hand and forearm in which the pulse is felt.—*Proceedings of Royal Medical and Chirurgical Society*, April 14th, 1857.

The Non-Mercurial Plan of Treatment in Syphilis. Read before the Western Medical and Surgical Society. By Dr. Cahill.

He commenced by narrating a number of cases in which the constitutional effects of syphilis had been very severe, and had extended, in spite of treatment, through many years, in all of which the early stage of the disease had not been attacked by mercury. After detailing these very carefully, he entered into the history of this plan of treatment, remarking that most of the Irish surgeons who had adopted it have since changed their opinions respecting it. He maintained that the severest and worst forms of constitutional syphilis occur when no mercury whatever has been given for the primary disease, and that the notion that the severe cases of secondary disease are mainly due to the mercury administered is not founded in fact. Mercury, to be of use, must be persevered in for at least six weeks, and to produce its good effects need not to be given lavishly or recklessly. If attention be not paid to this fact, no permanent effect is produced, and other forms of the disease, as secondary or tertiary, are apt to follow immediately after. He recommended the use of the bichloride in doses of one-twelfth to a quarter of a grain, together with the inunction of the strong mercurial ointment, until the gums showed that the system was affected by the mercury, and can be continued with safety longer than any other mercurial preparation, not only in these cases, but even in scrofulous diseases, in which its use is advisable; hence its peculiar value. Iodide of potassium, given with iodine, is the next remedy to be relied upon, though it is chiefly valuable in secondary and tertiary affections of the periosteum. In tertiary symptoms, the iodide is our sheet anchor, and mercury should never be given in such cases to the extent of producing its specific effects;

should a mercurial be required, the hyd. c. creta is to be recommended in conjunction with the iodide of potassium. Iron, arsenic, and mineral acids, under certain circumstances, are useful, especially after mercury has been fairly tried; with the ordinary means of restoring health, as good food, pure air, and rest, will generally promote a cure. He then alluded to the difficulty of distinguishing primary chancre, and the means employed by inoculation, and the peculiar hardness, of the true Hunterian chancre, and to the chance there was of a chancre in the urethra being overlooked, and to other sources of error as to the curability of syphilis without mercury. He concluded with the following observations:—

1st. That the severest and most prolonged forms of the disease have arisen where no mercury has been given for the primary or early secondary affection.

2ndly. That as no symptoms identical with those of constitutional syphilis are produced by mercury, the notion that mercury is a cause of constitutional syphilis is founded in error.

3rdly. That the administration of mercury may be so regulated as to preclude any of its severe effects; and supposing any are produced, it is manifest that they would be less severe than those caused by constitutional syphilis.

4thly. That the constitutional effects of mercury should be avoided in tertiary syphilis.

5thly. That the supposed successful treatment of syphilis without mercury is founded on erroneous diagnosis, or the causes have occurred in individuals already protected, or the subjects have been of that class who seem to enjoy immunity from the worst part of the complaint.—*London Lancet.*

On the Administration of Cod-Liver Oil, and Substances Soluble in it, in Capsules. By T. Spencer Wells, F.R.C.S.

I have very frequently found after ordering cod-liver oil, that the patients have objected very much to its unpleasant flavor. In many cases they have been quite unable to overcome their repugnance to it. In other cases the nausea it has produced has led me to discontinue it. This has been still more often the case when giving quinia, or iodide of iron dissolved in the oil. Yet the effects of these solutions, when borne, have been so very beneficial, that I was most anxious to overcome the objections to their use on the score of flavor. Some months ago it struck me that there was no reason why the oil should not be taken in capsules like copaiba. I accordingly asked Mr. Bastick, the druggist in Brook-

street to whom we are indebted for our knowledge of the solubility of so many substances in cod-liver oil, to have some of the oil with quinia put up by Messrs. Evans and Lescher in their membrane capsules, as I had found their copaiba capsules preferable to any others I ever tried. This was done at once, and Mr. Bastick has for some time past supplied many of my patients with membranous capsules containing cod-liver oil only or holding in solution quinia, the iodide of iron, and the biniodide of mercury. Each capsule contains twenty minims of the oil, and the dose of the quinia, or iodide, may be varied. Patients who object very much to the oil, think nothing of taking three, or even half a dozen capsules three times a day.

The combination of biniodide of mercury with cod-liver oil is particularly useful in some of the chronic syphilitic superficial diseases of the skin and mucous membranes. A tenth or twelfth of a grain with a drachm of the oil in three capsules three times a day, I have found to answer admirably in cases of chronic pityriasis and psoriasis, with superficial ulceration of the fauces. In some of the chronic joint affections of scrofulus subjects, the iodide of iron given in the same way, but in larger doses, is also very efficacious. When it is desired to give iron in the oil without iodine, and to give larger quantities, the wafer-paper so much used for taking the cubeb and copaiba pastes answers extremely well. A paste may be made of the sesquioxide of iron—the so called carbonate—by mixing up with it a sufficient quantity of the oil. A tea-spoonful of this paste, enveloped in wetted wafer-paper, is swallowed without the least difficulty or unpleasentness by any one who can take a pill.

In many cases of secondary syphilis in persons of broken down constitution, it is desirable to combine the iodides of mercury and iron. In this combination the iodide of mercury becomes soluble, and may be given either in the oil in capsules, or in the form of very elegant syrup which Mr. Bastick prepares. In prescribing this, however, the ordinary dose of the iodide of mercury must be considerably lowered, as the action becomes much more powerful when the salt is made soluble. The syrup is prepared of various strengths; but in the proportion of a quarter of a grain of the iodide of mercury to two grains of the iodide of iron in a drachm of syrup, it will be found extremely useful, and not very disagreeable.

I offer no apology for endeavouring to make these preparations and capsules better known, as I am sure they are very useful additions to our present means of treating disease successfully.

3 Upper Grosvenor-street.

—*Medical Times and Gazette.*

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

ENCOURAGEMENT OF THE UNLICENSED.—Since our last issue we have received four communications in reply to the letter of "A Veritable M.D.," which appeared in the February number of this Journal. Three are of a personal character, and from the gentlemen referred to in the district of Bedford. Against them it had been charged that they had quietly encouraged quackery in their neighbourhood; and, furthermore, had each in their employ, a hired assistant, who was an illegitimate practitioner. The accusation, it will be observed, is rather vague, and admits of different constructions;—the most suggestive, probably, being that in the respective localities wherein they practised, were quacks whom they did not prosecute nor interfere with,—and that each of the parties implicated, benefitted by the services of an illegitimate practitioner, to whom, in return, he gave his daily bread. Our correspondent subsequently proceeded in his letter to disclose who he meant by "quacks" and "illegitimate practitioners"; and this was the more necessary for being titles admitting of very wide meanings, some mis-apprehension might otherwise have been fallen into. His references appeared, then, to be not altogether to uneducated medical men,—but to such as had no right nor authority to practice medicine, or surgery, or midwifery in Lower Canada, from not having complied with the requirements of the College of Physicians and Surgeons, C.E., and not having obtained the provincial license. The heinousness of the offence was, in his sight, the more conspicuous, from the three gentlemen of Bedford, whom he said were guilty of it, bein Governors of the aforesaid College. The only matter left to determine is the truth or falsity of the allegation. A direct contradiction exists between the incriminator and the accused. It is not for us to hold jurisdiction in the case. We leave that entirely to the College whose honor is impeached. And if she be not wholly indifferent to professional approbation or contempt, she will not allow the affair to remain unsifted. The questions to be decided arising from the above considerations are simple:—Are there unlicensed practitioners practising in the same parts with these three gentlemen? Do the former enjoy a protection from the latter? Are they there with their consent, or upon their invitation? Do they act in consort with them as assistants, or consultants, or deputies?

In the same number of the *Chronicle* we gave our opinion upon the position of the College towards unlicensed practitioners, and of the duty which its members expected her to do, now we need no more than renew it. Of three letters we have selected one for publication—that from Dr. Chamberlin of Frelighsburg,—from the others we excerpt their answers to the charges, which are their only portions relevant to the subject under discussion. We shall, however, retain them, and if desired, print them *in extenso*. We have been called upon to furnish the true name and address of "a Veritable M.D." In reply we have to say that he desires us not to divulge them for the present.

Dr. C.'s letter will be found under the heading of Correspondence. It will be observed he stigmatizes the charge of encouraging quackery as "a falsehood and a slander," and in reply to the second accusation enters upon certain explanations of an interesting kind.

The second of the three gentlemen is Dr. Stephen Sewell Foster of Knowlton, Brome. He says:—"As relates to my having an unlicensed medical man in my employ, I have not, nor never had. I have had students only."

The third is Dr. Brigham of Philipsburg; he answers, referring to his calumniator:—"I also wish him to give my assistant's name, for those who know me, know the affording my countenance to quacks and quackery, is about the last charge to which I am really obnoxious."

To the charge of not putting down quackery, both Drs. F. and B. retort upon us the disgraceful example which Montreal, with all her vaunted superiority, is setting other parts of Canada over which, in medicine, she usurps pre-eminence. We admit the force of the observation, but with qualification; Montreal is at present, from her imbecility in the Tumblety affair, an object of pity, or scorn as you please; but who makes her so? It is not the individual members of the profession,—they have nothing to do with taking out actions against unlicensed practitioners, they have neither the ability nor the business to do so; these lay entirely with the College of Physicians and Surgeons, C.E.; for these she was mainly incorporated, and in these she is sustained by the Legislative powers with which she is vested. She can prosecute, and with prospect of her suit not only being entertained, but becoming successful if her officers, who are the proper parties to interfere, choose to bestir themselves and appeal in her behalf, as her representatives. The comparison, then, is not just, for the parallelism cannot be carried out; you in Bedford are officers of this body,—we who write are not. And here again, for further elucidation of this point, we refer to the editorial before quoted, the expressions in which we reiterate.

The fourth letter is from Dr. Von Iffland of Quebec, one of the Vice-Presidents. It will be observed he holds a different view to ours of the responsibilities of practitioners generally, in putting down quackery. As far as we know, the only mode in which the profession collectively or individually can assist, in what should be a general act or rather desire, is by giving the College—the engine legalized for that purpose—the support necessary for carrying on the warfare, and this we believe they are prepared to do if she in turn will shake off her lethargy. We fear, however, if the present state of things persists, the few members she now numbers, exclusively of the Governors, will gradually drop off, feeling they derive no protection, nor advantage, nor honor from connexion with her, and that their yearly contributions may easily find a more profitable disbursement.

THE APOTHECARY'S BILL.—We publish the following sketch of a proposed Bill for the regulation of the studies of Apothecaries and sale of poisons. It was submitted in accordance with a resolution of the Board of Governors of the College of Physicians and Surgeons of Lower Canada, at their last semi-Annual Meeting held in Quebec, for consideration, by the members of the said College.

The Bill to clause VI. we consider very desirable, because it will provide for the education of druggists, and secure the services of competent assistants, while it will endow licensed members with certain privileges in which, others not similarly qualified, cannot participate. The portion, however, from clause VI. to clause X. we look upon as open to many amendments and extensive excisions; and invites much discussion, which no doubt those whom it most concerns will render in justice to themselves before any decided action is entered upon. We would here briefly observe that clause VI. appears to us to have been constructed thoughtlessly. Many remedies are purchased adulterated, and are not known to the dealer to be impure, is he therefore, when the discovery is made by a more expert analyst, to be subjected to incarceration or the payment of a heavy fine? In fairness he can only be held responsible for the sale of drugs that either he wilfully sophisticates or disposes of knowing to be impure. Clause VII. is open to the objection which we made, about this time last year, against a similar provision in a bill of Mr. Alleyn's; it is this, that no provisions are made in favor of prescriptions. If it were legalized, in strict compliance with its obligations, every time a physician ordered a dose of any of the substances named or understood, he would be compelled to send with his receipt a certificate drawn up according to the form described. Again, we would remark the production of a similar certificate is no guarantee that the substances obtained may

not be put to an improper use. He who desires to poison himself or kill another is not likely to publish his intention, he would rather be disposed to conceal his real purpose and assign some wrong reason for wishing to obtain the fraudulent agent. He will give a pretext, and as such authorized orders for the sale of poisons may be got from any justice of the peace or clergyman who may not care much to trouble himself about the designs of his supplicant, the latter will not be likely to meet with a refusal. The Act does not define any particular use for which the poison alone shall be used, and therefore might be demanded, but permits a certificate to be given to any one who desires poison to kill wolves, exterminate rats, or destroy vermin, or to accomplish some other equally unsuspicious motive the purchaser chooses to allege. Clause VIII. we consider to be simply unnecessary, for the rare accident it is intended to avert may be obviated in a much less troublesome manner. Therefore the inquisitorial system of Clause IX. must also be meddled for.

"I. And be it enacted, that from and after the passing of this Act, no person shall practice as an Apothecary, Chemist, Druggist, or vendor or retailer of Medicines, in the Province of Lower Canada, unless he shall have attained the age of twenty-one years, and shall have served a regular and continued apprenticeship with some regularly licensed Apothecary, Chemist and Druggist in the said Province, for at least three years, and have obtained a Diploma from the College of Physicians and Surgeons after examination before the Board of Governors, and having been found in every respect a fit and proper person to receive the said Diploma.

"II. And be it further enacted, that from and after the passing of this Act, no person shall practice as Apothecary, Chemist, Druggist, or vendor or retailer of Medicines in the Province aforesaid, without, previous to his examination before the Board of Governors of the College of Physicians and Surgeons, affording evidence of a sound elementary education: producing certificates of good moral character: of having regularly attended a course of Medical Jurisprudence, each at least of three months' duration; two courses of Materia Medica, and two courses of Chemistry, which courses shall be of six months' duration, at some recognised Medical College, or Public Medical School.

"III. And be it further enacted that every person practising for gain or profit, as Apothecary, Chemist, Druggist, vendor or retailer of Medicines, in the said Province, without a Diploma to that effect, shall for the first offence incur a penalty of five pounds currency; for the second, a penalty of ten pounds currency; and for the third, and every subsequent offence, a penalty of twenty pounds currency; and on conviction of any of the said offences, before any Court of competent Jurisdiction, shall stand committed to the common Gaol of the District in which the offence shall have been committed.

"IV. And be it further enacted, that the Board of Governors of the College of Physicians and Surgeons of Lower Canada shall regulate the fees to be paid by all candidates for license to practice as Apothecaries, Chemists, and Druggists,

or vendors or retailers of Drugs, provided the amount of such fees shall not exceed the sum of fifteen dollars; which fees the said Board of Governors shall have power to dispose of in such manner as they shall deem most proper for the interests of the College.

"V. And be it further enacted, that it shall be the duty of every person who shall after the passing of this Act, receive a Diploma to practice as an Apothecary, Chemist, Druggist, vendor or retailer of Medicines, before practising as such, to cause his Diploma to be entered in the Register of the Registrar of the College of Physicians and Surgeons, under the penalty of five pounds currency in case of neglect or disobedience.

"VI And be it further enacted, that every person exercising the profession of Apothecary, Chemist, Druggist, and every vendor or retailer of Medicines in the Province aforesaid, who shall vend or retail any Medicine which shall be adulterated, or which shall not be genuine, shall incur a penalty of five pounds currency for the first offence, ten pounds currency for the third and every subsequent offence; and, being convicted of any such offence, shall be imprisoned until such fine shall have been paid. Provided always, and under the penalties aforesaid, that no Apothecary, Druggist, vendor or retailer of Medicines, shall visit any such persons, or prescribe for them; the right of such Apothecaries, Chemists, vendors or retailers of Medicines, extending only to the vending of the articles required of them, without giving any direction whatever for the use thereof; but nothing herein contained shall prevent such Apothecaries, &c., from vending Patent Medicines with printed directions for the use thereof.

"VII. And be it further enacted, that no Apothecary, Chemist, Druggist, vendor or retailer of Medicines, in the Province aforesaid, shall sell any Arsenic, Corrosive Sublimate, or other article of mineral or vegetable, simple or compound Medicine, generally known under the denomination of rank poison, and which, incautiously or secretly administered, might cause death,—unless the person requiring the same shall produce from some Justice of the Peace, or from any duly qualified Physician or Clergyman of the place where he resides, a certificate, note, or paper-writing, specifying the name, residence, and trade or profession of such person requiring such Arsenic, Strychnine, Corrosive Sublimate, or other article of poison as aforesaid, as well as the purposes for which they are intended to be used,—addressed to such Apothecary, Chemist, Druggist, vendor or retailer of Medicines; and any Apothecary, Chemist and Druggist, vendor or retailer of Medicines, herein offending, shall for the first offence incur a penalty of ten pounds currency, and, on being convicted, stand committed until payment of the said penalty; and, for the second offence, be disqualified by the Board of Governors of the College of Physicians and Surgeons, of ever practising as an Apothecary, Chemist and Druggist, or vendor or retailer of Medicines. And such Apothecary, Chemist, Druggist, and vendor or retailer of Medicines, shall keep and preserve, for his own justification in case of need every such certificate as aforesaid.

"VIII. And be it further enacted, that every Apothecary, Chemist and Druggist, vendor or retailer of Medicines, in the Province aforesaid, shall be bound carefully to keep in some private and safe place in his Shop or Dispen-

sary, and in yellow bottles, so as to be clearly and easily distinguished, with proper and legible labels in large letters upon each bottle or vessel, in order to prevent mistake either by himself, his apprentice, or other person entrusted with his Shop or Dispensary-all Arsenic, Strychnine, Corrosive Sublimate or such other article of poison aforesaid, generally known under the denomination of rank poison, under the penalty of five pounds currency, in case of disobedience, and shall be committed until payment of the same.

"IX. And be it further enacted, that the Board of Governors of the College of Physicians and Surgeons shall, by virtue of this Act, have authority to depute any three Governors of the said College to enter the Shop or Dispensary of any Apothecary, Chemist, Druggist, vendor and retailer of Medicines, in order to ascertain if the requirements herein above-mentioned, with respect to Arsenic, Strychnine, Corrosive Sublimate, or other such article of poison as aforesaid, be complied with; and such Apothecary, Chemist and Druggist, vendor and retailer of Medicines, who shall refuse admittance at any hour of the day, between ten in the forenoon and four in the afternoon, to his Shop or Dispensary, to the persons authorized to the intent aforesaid—such persons producing and exhibiting a written authority to the intent aforesaid—shall for every such offence incur a penalty of five pounds currency, and, on conviction, shall be committed to the common Gaol until payment of the same.

"X. And be it further enacted, that the penalties imposed by this Act shall be recoverable on the oath of any two credible witnesses, before any Justice of the Peace for the District in which the offence has been committed; and in default of the payment of such penalty on conviction, the offender may be committed to the common Gaol of the District until the same be paid."

CORRESPONDENCE.

A STUDENT'S LETTERS.

No. VI.

Perhaps it would not be out of place were I to give you my opinion regarding the Medical Schools of the three Capitals of the United Kingdom.

London, the great school of Surgery, is to be preferred before any other, if that be the branch to which most attention is to be paid; but as a school of Medicine, I do not think it is by any means equal to that of Edinburgh. In London the very large hospitals are very numerous, and their days of operation are so arranged that you may be present at one on each of the six days of the week—and some days even at two separately. As operations at each are numerous, you can here see almost every operation performed on the living body in a comparatively short space of time; you can also see the different methods practised by the great surgeons of the day. This is, I think, the only great superiority of London. Another advantage there is also, viz.: the Lectures on

Practical Physiology, or experiments on living animals—the very great benefit of which, to the student, I need not mention—and Histology, or the use of the microscope in examining the arrangement of the ultimate fibres in the different tissues—the student having to prepare his own objects. These lectures are only delivered at the University College, and cannot be attended at any other, except the Continental Schools.

In the London hospitals the medical wards are, generally, but very poorly attended—the surgical division receiving the most attention. This, I think, is due to the very erroneous arrangements of the London College of Surgeons, requiring the examination to consist merely in testing the knowledge of the candidates on the three subjects of Surgery, Anatomy and Physiology; and hence there is less attention paid to the other branches. I am not able to form such a definite conclusion regarding the Dublin School, because being there in the months of September and October, when no lectures are delivered, the medical world was at a stand-still. The great superiority which Dublin undoubtedly possesses is the Lying-in Hospital. The number of students from different parts of Britain, as well as from the United States, is very great, which shows how much the advantages of this institution is appreciated. The General Hospitals in Dublin are numerous, compared with the size of the city, and hence are small.

I can say more about Edinburgh, because I have been here during the winter session. The advantages to be obtained in this city are, I think, greater than in any other; and I think any person who will calmly consider, cannot but come to the same conclusion. As a medical school it is decidedly superior, not only in having as teachers the first medical men of the age, but also in the better method of instructing, and likewise the greater advantages derived from the Infirmary. This is the centre for all the difficult cases in the eastern part of Scotland and the north of England, as well as many from America, who come here for surgical advice. And as there is only one Infirmary in Edinburgh, there is not the same division as exists in both London and Dublin.

Clinical medicine, as taught by Dr. Bennett—and we should say first introduced into this country, from the continent, by him—is decidedly superior to any of the others. All the conveniences required for clinical examination, as the microscope and the different tests for the urine, etc. are in every ward. The great attention which is given by the professors in teaching the students individually, and the autopsy room where each of the fatal cases are examined by the pathologist to the Infirmary, present advantages not to be found in every school. If there be a superiority in medicine, I think there is even more so in surgery. This

branch, think, is even better taught here than in London, because there are more cases of importance to be seen here than in any single hospital in the last mentioned city. I do not value this so highly as the clinical lectures which are delivered by Mr. Syme and Mr. Spence. These are not like those of clinical medicine given on the patients at present in the ward, and which the students are supposed to have seen, but on the patients at present examined. During the hour of lecture each important case is brought into the theatre, examined and described, and, if required, the operation performed; at each lecture there will be from five to eight examined. Perhaps this way of conducting a clinic may not appear to possess any great advantages; but I think if one be attended which is carried on in this style, and then one given in the usual manner, the difference will be at once evident. I cannot leave this part of my subject without expressing my conviction of the very comprehensive and explanatory course of lectures delivered by Dr. Simpson on Midwifery. These, with the Surgical Clinique, are the two superior courses in Edinburgh.

In finishing, I must state that my opinion of Montreal as a medical school is very much greater than it was when I left, because, after having visited several of what are by all considered to be first in consequence, their superiority over Montreal is but little indeed; and if a course of lectures on Pathological Anatomy and the practical use of the microscope, with lectures on Practical Chemistry, were instituted, I should say on this point it is inferior to none as regards the teaching department. I think these extra lectures could be easily delivered in the summer season, as in this country, and would be well worth the establishing. The sole defect which Montreal would then have is the want of a sufficient number of surgical cases; and this will every day grow less as the city and its manufactures increase. As a medical school it is now as good as any other for general cases, with the advantage of the dispensary practice of the out-door patients.

There is nothing in Edinburgh of late which is worth mentioning. Dr. Bennett's work, the "Clinical Lectures on the Principles and Practice of Medicine," has just issued from the press. There are 930 octavo pages in it, and of course his latest views on medicine are fully explained.

A. R.

Edinburgh, March, 1858.

To the Editors of the Medical Chronicle.

Gentlemen,—I notice an anonymous communication in the *Chronicle* for February, in which a grave charge is preferred against the three Governors of the College of Physicians and Surgeons for Lower Canada, resident in the District of Bedford. As one of the Governors so attacked, I deem it my duty to notice it. It is asserted by your correspondent, that, in place of any effort to put down the operations of practitioners without license, "quacks" are found "running at loose-ends over the whole country, and the three Governors themselves quietly encouraging it in every instance." Now, this is simply a falsehood, and slander, so far as regards myself, (my colleagues, I doubt not, will answer satisfactorily for themselves,) one which should not be preferred in the columns of a medical journal — the *quasi* organ of the profession in Lower Canada—except upon the very best testimony. It is a charge which your correspondent should have made personally before the College itself, where, the accusation being open, the defence would have been not only in the light of day, but, I am sure, successful. Your correspondent goes farther, and avers that these Governors "have each an illegitimate practitioner in their employment, to whom they are giving their daily bread for their services as hired assistants in their practice, and not as students" Now, Messrs. Editors, previously to the incorporation of the College, the practitioners on the border were compelled, generally, to look to the United States for their assistants,—most of those thus employed being, I believe, "veritable M. D.'s," graduates of American colleges ere coming to Canada, and usually settling here with a view of taking out licenses as soon as their means and opportunity would serve. One of my fellow-Governors began practice in Canada in that manner, but subsequently graduated at McGill College, taking a high position in his class; and so obtained his license, and, not long after, his Governorship. No real evil has arisen from this state of things,—no more wrong to the public and profession resulting than from the manner in which almost every medical man employs the more advanced students indentured to him. Was your correspondent (so charmed with the dignity of his degree as to thrust it forward with a "veritable" attached to it) never employed in this way during the time he was a student and under graduate?

Such a complaint against the employment of these American M. D.'s can only tend to one end, that under-graduates of the University should be privileged to practice under their patrons' supervision; while men who are not in a position to enter at our Universities, but who are pre-

paring to become licentiates of the College under the liberal provisions of the Act of Parliament,—men with a diploma already in their pocket, and therefore already one of that magnificent class of features, "a veritable M. D.,"—should be strictly debarred from any such opportunity of usefulness or improvement.

Doubtless some men are of opinion that it would be well for the profession that all its members should be compelled to take degrees from our Provincial Universities. Certainly I desire to see them well filled with students, and feel a peculiar interest in the prosperity of McGill College; but Parliament, and the majority of the profession, have not entertained this opinion. Hence the establishment of a Licensing Board, open to other men; and so long as that avenue is open to the young medical man, so long should the student, or foreign graduate preparing for a license, be looked on with no less favor than the University undergraduate.

I cannot suppose you desirous of discussing the medical politics of the Province in any narrow or exclusive spirit, or that you desire to be understood to be the organ of McGill College—not of the profession at large, since the display of such a spirit of partizanship must tend to lessen the sphere of usefulness and influence of the *Chronicle* as a scientific journal, by rousing the prejudice and hostility of a large, if not the largest, portion of the profession against it. I therefore trust to your love of fair play to allow this contradiction, in express terms, of the really grave part of the accusation against the three Governors to be laid before the public, together with the explanation of the grounds for the minor attack. His letter, viewed in a spirit of even-handed justice, and not as one of University men against licentiates, will, I am sure, be deemed as uncalled for as the other. The one charge is a fabricated calumny; the other a perversion of the truth, to suit some personal or party purpose.

The whole communication, you will see, is a most unreliable basis for your suggestion of a formal accusation and expulsion of the Governors; but if the "veritable M. D." has the moral courage to take the matter before the College, he need not doubt that the three Governors will be quite ready to meet him there.

I am convinced that I have taken more notice of this communication than it deserves; much more than I should have done, but for the species of apparent approval and dignity given it by you. It may suit the purpose of some youngster, vastly proud of his newly-won dignity, to parade it in print, accompanied by such natural zeal for University privileges; but it can hardly serve the purpose of the *Chronicle* to give currency to anonymous slander, or become the vehicle of flippant tirades.

The dignity and privileges of the profession, when invaded, will not lack. I hope, earnest and able defenders in the Colleges and the Universities, In this instance,

"*Parturiunt montes, nascitur ridiculus mus.*"

The mountain of professional dignity in labour has brought forth a "veritable M. D."

In conclusion, I have to request that you will furnish me with the name of my anonymous assailant, that the public and the parties attacked may know what additional weight is due to the accusation derivable from his personal standing and repute. I wish also that the faculty of his alma mater may be enabled to judge how far he has forgotten—how far fulfilled the obligations solemnly undertaken by him at his graduation with respect to his conduct towards his professional brethren.

I have the honor to be,

Gentlemen,

Your very obedient servt.,

J. Chamberlin, M. D.,
Governor College P. and S., L. C.

Frelighsburg, March, 1858.

Gentlemen,—It was with pain and regret that I read in your last issue, an article bearing the anonyme of a *Veritable M.D.*, implicating three Governors in the Eastern Townships, as aiders and abettors of those who practice without a diploma or license, &c. The charge, as you justly observe, is most grave, and should be made the subject of inquiry at the next meeting of the College of Physicians and Surgeons.

Your anonymous Correspondent's memory is correct, (it is to be regretted, however, that his intentions are not more so) that the Act passed by the Legislature incorporating the profession into a body politic, gave certain rights and privileges, &c., and which among other things "*allowed to different parts of the Province their share of representation at their Sessions*, and a voice in the affairs pertaining to the regulating and confining of licenses, as well as overlooking the best interests of the profession generally."

It would also appear by your Correspondent that three Governors have been elected in the district of Bedford, since 1847, the year of the organization of the College of Physicians and Surgeons, and that it is worthy of note, the same number has ever since been elected from the same district. To which I may add, that had he been a member of the College, he might also have been equally eligible to the honor, provided

his personal respectability and professional acquirements were unobjectionable to the electors. Without entering further into the self-culpatory allegations of a *Veritable M.D.*, I shall merely observe, that it is truly unfortunate that he should have retarded so long in arriving at the conviction that "every one who has sought and obtained an honorable admission to the profession should discountenance every individual who savors in the least degree of quackery and humbug."

Now, to whom, I would fain enquire, should be attributed "the state of things" which this *Veritable M.D.* assumes in his Correspondence, to exist, and moreover, censures the Board of Governors for its laxity and indifference to protect all medical practitioners from the encroachments which are made on those rights and privileges assured to them by the law of the country on their admission to the profession. But is this all? Are these medical practitioners no longer to contribute their exertions and influence, and otherwise evince some interest in preventing these encroachments on their rights and privileges? Are these medical practitioners merely to attend to their patients, and when thwarted by empirics and quacks in their gains, to turn round upon the Board of Governors of the College of Physicians and Surgeons and attack them for not doing that which is also in their power, and even privilege, to arrest, by connecting themselves more closely with that body? Is the Board of Governors to seek out infractors of the law, and thereby expend the small pecuniary means which it has obtained through more zealous members of the profession than Veritable M.D's., to bring these delinquents, in their unhallowed pursuits, to justice? Certainly not. The College has already done so in several instances, at very considerable expense; but from the apathy and indifference of members of the profession in supporting the Board of Governors, by becoming members of the College on the payment of the pithy annual subscription of ten shillings; it will, however, reluctantly, for a short period, be under the necessity of abandoning the initiation of proceedings against delinquents.

It is true, as has been already observed, that the highest interests of society are implicated in all that relates to raising the standard of professional education; and it is this consideration more especially, which ought to induce the Government of the country to free us from the obnoxious task of prosecuting for infractions, and to take this important subject under its own immediate and earnest notice.

I am also anxious to impress on the minds of the members of the profession that at no time more than the present, do we require a combined and strenuous effort to be made, in order that the exertions of so many years to advance their interests may not be rendered nugatory.

In conclusion, I trust that at the next Session of the Board of Governors, "*a Veritable M.D.*" will make his personal appearance, and manfully substantiate the disgraceful charge he has preferred against three members of that Board, if not, it is to be hoped, for the strict integrity of their own character, as well as for the distinguished position in which they have been placed as representatives of the medical profession by their Peers, that no means will be left to bring "*a Veritable M.D.*" before a Court of justice, and there receive the condign punishment which is incurred by the calumniator and libeller.

A. VON-IFFLAND, M.D., &c.,
Vice-Pres. Col. Phys. & Sur.

Quebec, 1st March, 1858.

HOSPITAL REPORTS.

Anchylosis of right Knee Joint with immovable patella, and partial dislocation backward of bones of leg. Reported by Mr. W. P. O. Whitwell.

John Donlavy, aged 38, of apparently healthy constitution, was admitted into the Montreal General Hospital on August 19th, 1857, with an affection of the right knee joint. No written description was then taken of his case, but he now states that six months previously to admission he received an incised wound of three inches in width and of less than half an inch in depth, from a carpenter's shave, across his right knee, just above the patella. Inflammation of the wound and swelling of the joint to a slight extent ensued. About a week after this accident, on going out of the house, probably through a wish to save injured limb, he made a false step and slipped, and his leg was wrenched backwards. A crackling sound was at the same time heard, and the patella seemed displaced outwards. Intense pain was felt when he attempted to bear his weight on the limb. The pain in the joint and leg, together with his inability to walk, confined him to bed for a period of four months, during which time no attempt was made to straighten the limb, which remained constantly in a flexed position. The wound, which had discharged slightly, shortly afterwards healed, and caused him no more trouble. A blister was applied to alleviate pain in joint, but the enlargement continued and extended now down to the ancle. On admission into Hospital the joint was twice or thrice larger than its fellow; there was also inability to extend or bear upon the leg. Great pain was complained of in the joint and down the inside of leg and thigh. Dr. Wright, the attending physi-

cian, ordered the extensor to be applied, but becoming unserviceable its use was not continued. Iodine paint was employed with advantage in dissipating the enlargement, and a mixture of Iod. Potass. and Vin. Colchici was used internally. (Iod. Potass. ʒ i., Vin. Colch. ʒ i., Aqua ʒ viii. Cap. ʒ ss. ter. in die.)

His present condition, on Feb. 5th, 1858, is as follows:—All the soft parts composing the stiff joint of leg seem thickened and hardened, and the motion is limited. Perfect extension cannot be reached by within six inches, owing to rigidity of flexor muscles, and the stiffening caused by the plastic material thrown out. The foot is everted considerably, and a depression at the superior extremities of tibia and fibula, and consequent protrusion of lower portion of femur are very marked. The patella is immoveable and is displaced outwards. The affected joint is now only about an inch greater in circumference than its fellow. A slight shortening of leg is also visible. Only an occasional pain, and that of no great intensity, is complained of.

The injured joint is at present of very little service, on account of partial dislocation and eversion of foot, very little pressure can be made on the heel, and he cannot move about without the use of crutches.

Feb. 10th.—Dr. MacCallum directs gradual extension by manual power to be employed daily, in hopes of relaxing the muscles and breaking up some of the morbid adhesions about the joint. Liniment to be applied to relieve slight pain complained of inside of joint.

15th.—Great improvement in motion of limb. No bad effects result from stretching the joint, except a slight pain. Extension limited to every alternate day.

25th.—Extension continued. The limb is gradually acquiring a straighter condition, and the manipulation has had the effect of greatly diminishing the stiffness and also pain in joint.

March 1st.—Benefit of extension not so marked of late, but there is no retrogression.

9th.—As further extension seems prevented by rigid condition of tendon of biceps muscle, Dr. MacCallum performed operation of tenotomy, and the limb was directed to be extended as far as possible, and put up in that position, in a retentive apparatus.

14th.—The operation has considerably diminished the anchylosis. When the leg is placed as near as possible in the horizontal position, the popliteal space is only about two and a-half inches above the level of the rest of the leg. The joint is less stiff and can be extended with less pain. He can bear, tho' only for a moment, the whole of his weight on the limb; but on account of eversion of foot and non-opposition of bones of

joint, its strength is materially diminished. He can move about the ward, tho' slowly, without the aid of crutch or cane.

Case of Molluscum. Reported by Mr. Bowman.

William Atkins, a single and a temperate man, aged 32 years, was admitted into the Montreal General Hospital by Dr. MacCallum, 20th February, 1858. Was born in Litchfield, Staffordshire, England, of phthisical parents, his mother dying of disease of the lungs when he was 6 years of age; his father at a later period, of a like disease, after the debility caused by three months' confinement from dislocation of the ankle joint. He has a brother (35 years old) living, who has been troubled many years with a running sore on one of his legs.

William Atkins was nursed by his own mother, after whose death he was sent to the poor-house, where he remained for six years, at which time he was bound to a harness furniture coverer. Here he received much hard treatment, being compelled to lie on the bare floor and to live on hard, irregular and scanty fare for a period of 14 years. The long-continued stooping posture, from 6 o'clock in the morning until 8 o'clock at night, endured by him during this period, he thinks has ruined his constitution.

After six months spent in assisting a gas-fitter who kept very irregular hours, he has since worked in machine shops, being employed in drilling bolt-nuts, &c., at which trade he has been engaged in the workshops of the Grand Trunk Railway Co. at Longueuil for the last seventeen months. The work is not laborious, but the situation is close and confined, and during the winter is situated near a very large and hot stove, which could not be prevented on account of the drilling machine at which he worked. He has very frequently caught colds from throwing off his coat when very warm. On exertion he does not sweat like other persons; it never breaks out on the face and but slightly on the body, but a burning heat is felt which greatly distresses him: this has been the case since as long ago as he can recollect. The heat of summer, he thinks, enfeebles him much more than other persons, and the cold of winter renders him more chilly. The colour and temperature of skin is normal. He is short-winded on running, and when much excited is subject to palpitation of the heart, but this has been hitherto but seldom.

His appetite has always been very good, but from his childhood up to the present a small quantity of food has satisfied him, which he has ever preferred to be of a salt nature. Fats or fatty food do not agree with him.

He has been subject to a bowel complaint more or less for his whole lifetime, but the passages have generally been of a natural colour.

He has never been troubled with piles, bleeding at the nose or pain in his right side. His sleep has always been natural.

It is now nearly two years since he first observed two or three tumours on his back and abdomen, from which he suffered no inconvenience. Their number have been gradually increasing since that period up to the present time, and none of them have ever receded or been removed. They seemed to increase much faster last summer, which increase continued through this winter, rendering, he thinks, his skin more tender than usual, especially on rubbing. He consulted a physician of Longueuil concerning them, who, without examination, gave him a powder which produced no effect but to purge him actively.

About a week ago he felt an itching all over his body, which left him after a bath.

The enlargements of the sebaceous glands are irregular in shape and size, with no similarity of situation between those on opposite sides of the body. Their orifices are closed, and on about a third or a quarter of them black points may be observed. The skin is not hypertrophied either over or around them. Some of the tumours have the appearance of warts, being somewhat pedunculated; others of small soft tumours, with broad bases; none of them seem to have necks. They are very numerous, and many are not larger than a pin's head; the greatest of them are from $\frac{3}{8}$ to $\frac{1}{2}$ inch in diameter, and many are the size of a large pea.

Dr. MacCallum prescribed 3 grs. iodide of potash three times a-day, with cod liver oil. Nitrate of silver to be applied daily to the tumours.

March 20th.—Left Hospital to day. The tumours have been benefitted by the treatment adopted, many of them having reduced much in size. He is to continue the internal treatment for some time yet, and to apply the nitrate of silver occasionally.

Internal Hæmorrhoids, removed by ligature. Reported by Mr. John Pickup.

James Brown, aged 56, native of England, was admitted into the Montreal General Hospital, on the 15th of March, 1858, under Dr. MacCallum, for the purpose of undergoing an operation for piles.

He states that they first attracted his attention about twenty years ago; but not knowing what they were, and as they did not then occasion any inconvenience, he did not consult any physician for a year. About eight or 10 months after he first noticed them, he mentioned the fact to a neighbour, who told him they were piles, and gave him an oint-

ment which he said would do him good. He states that he used it, with some benefit; but as they still continued to trouble him, he thought it best to consult a physician. Upon doing so, he received a lotion of acetate of lead, which he used with much benefit. It failed, however, to cure them. They were protruded about once every two or three months, and he states that his efforts in defæcation were attended with a great deal of pain. Before his admission into the hospital they were protruded every day, causing him intense pain. About 12 or 13 years ago, their protrusion was attended by slight hæmorrhage, from which he obtained so much relief, as to lead him to believe that the attack of piles had subsided. The relief, however, was of short duration, for the vessels filling again, produced a return of all the symptoms. Latterly, they even protruded through the anus every day, from their obstruction to the passage of the fœces, and the protrusion was at times attended with slight prolapsus of the anus. But generally after defæcation, both the hæmorrhoids and the prolapsed bowel, returned spontaneously into the anus. The *hæmorrhage* too was considerable, the blood being forced in streams from the piles, but giving him a great deal of relief. He states that he has had a great many quack remedies, and sometime with temporary benefit. He also informs me that for some time past, he has been unable to keep his linen clean, from the constant discharge of a pale slimy matter from the bowels, and the frequent hæmorrhage from the piles. He has been troubled for a number of years with asthma, for which he has used large quantities of opium.

He had an attack of fever and ague about 25 years ago, but has had no other sickness. His mother died about 10 years ago, and for 20 years before her death was troubled with asthma. His father died about 25 years ago, from injuries inflicted by a bull. The rest of the family —2 brothers and 4 sisters are all living.

Two large hæmorrhoidal tumours, on examination, are found protruding from the anus, and including the greater portion of the circumference of the gut. They are not at all pedunculated; but connected with the rectum by broad bases. Their surfaces exhibit the usual livid blue appearance, having a number of bright red vessels ramifying over them. Dr. MacCallum ordered him to receive a dose of castor oil to night, and a copious enema of warm water to-morrow forenoon, one half hour before the time appointed for the operation.

16th.—The castor oil and enema have cleared the bowels well. The patient was now placed on his left side with his buttocks protruding well over the side of the bed, and desired to force the piles out as much as possible. The smaller of the two tumours was then seized with a volsellum, drawn

well out from the gut, and a ligature tied tight around its base. The larger of the two was transfixed with a needle carrying a double ligature, and the base firmly ligated in two separate portions. They were then returned into the rectum and the patient placed in bed.

The haemorhoids were thrown off in eleven days and he left the hospital on the 30th March, completely cured.

Hemiplegia, probably from Softening of the Brain, with disruption of its fibres. Reported by Mr. Wm. Harkin.

Robert Douglas, aet. 28, a storeman, was admitted into the Montreal General Hospital, March 16th, 1858, under Dr MacCallum. Has no family history of apoplexy or any other hereditary disease; his own health was always very good. Four years ago he had an attack of deafness in his left ear, caused by exposure of that side of his head to a cold wind for several hours. It was attended with dizziness, severe headache, and some confusion of thought, but got well of its own accord in a few weeks. There was no paralysis then of that side of the face. Has been of intemperate habits, and has had syphilis. For the last month he felt drowsy and stupid, but had no pain in his head, sometimes feeling dizzy and slightly confused. On the 13th inst. he was at work as usual, and about 3 o'clock P.M. felt a sudden pain in his left eye, with a tingling numb sensation of that side of his face; got very weak and would have fallen, only that he was supported by another person present; did not lose consciousness. After a short time he felt able to go home in a sleigh, where he remained till the 16th inst., and then entered the Hospital, when his symptoms and condition were as follows:—

Is a somewhat plethoric man, of sanguine temperament, face flushed, tongue moist but coated, skin moist and warm, pulse nearly 100 per min., but of natural strength. When he walks he drags his left leg and staggers, but says he does not feel it any weaker than the other. Its sensation is also perfect. The left side of his face is paralyzed, and its sensation very much blunted, feeling numb and tingling, his mouth is drawn to the opposite side, and lips on the left side swollen, and the left eye slightly inflamed. When he puts out his tongue it projects to the left side, but he can turn it to the other side at will. His sense of taste is not affected, but his voice is somewhat husky, and his articulation imperfect. The pain in his eye is much diminished, but there is still some confusion, and a tendency to doze a great part of the day, although he thinks he sleeps very little. His bowels have been habitually costive.

March 17th.—℞ Calomel grs. x., to be followed by Haust. Nig., and also 2 grs. of Calomel every 6th hour.

18th.—Cups to the nape of neck. Nurse says he is at times incoherent.

19th.—Emplas' Lyttae to nape of neck.

22nd.—Pulse 88 and natural; pupils of equal size and similarly affected by light; less dragging of mouth to affected side, face feels numb, lips less swollen, walks with a staggering gait, but feels both legs equally strong. Electricity showed no difference in the irritability of the muscles of the arms; micturates freely; bowels costive.

23d.—Is salivated. Omit mercurial; pulse 86; feels much better, and slept better last night, and has no pains or dizziness in his head.

24th.—Slept pretty well last night; pulse 88. White fur on centre of his tongue; sensation returning to paralyzed cheek; pupils natural.

25th.—Pulse 84; sensation almost as perfect as in opposite side. ℞ Haust. Nig.

27th.—Condition as yesterday; pulse soft and 80.

28th.—Still drags his left foot slightly, and also staggers somewhat; complains of no pain or unnatural feeling in his head; sleeps well during the night and less during the day. Articulation much improved.

29th.—Left Hospital this morning against advice, as he was anxious to return home, and considers himself cured.

MEDICAL APPOINTMENTS.

Secretary's Office,
Toronto, March 19, 1858.

His Excellency the Governor General has been pleased to make the following appointments, viz.:—

Robert Aberdeen and George M'Micking, of Chippawa, and John Cronyn, of Fort Erie, Esquires, Surgeons, to be a Board for examining Applicants for Militia Pensions in the County of Welland.

MILITARY DISTRICT NUMBER THREE, LOWER CANADA.

First Battalion, Beauce.—To be Surgeon: Dr. Louis LaBreque.

MEDICAL NEWS.

Two very eminent men have just had conferred upon them, the honorable distinction of Associate to the Academy of Medicine of Paris; E. Lettré and M. Isidore Geoffry St. Hilaire. The former has obtained great reputation by his medico-philological works, especially by his translation of "Hippocrates," a perfect model of erudition and research. The latter is son to the great naturalist of the same name.—The Students of King's College, London, are exerting themselves to procure an amendment of the Anatomy Act, so as to effect a better supply of subjects. For this purpose they memorialised the four examining boards to use their influence with the government.—A curious case has lately been tried in Paris to secure damages for the infection of a young woman, a nurse, by an infant which she had received to suckle. The infant had an eruption on the face, which the medical attendant considered to be harmless; however, in about a fortnight, an eruption appeared about the nurse's nipple, which proved to be syphilitic, and the child subsequently died of the disease. The case having been clearly proved, the tribunal awarded to the nurse 8,000 francs in damages with the costs of the suit.—Influenza is very prevalent in St. Petersburgh, Paris, Vienna and Berlin. In Berlin certain trials were obliged to be postponed, from the circumstance that out of twenty-four jury-men summoned more than twelve were prevented being empannelled by being confined to their beds.—The weather in Italy is reported to be unusually severe. The cold in Turin is so great, that a sentry is said to have been frozen to death at his post.—Sir Charles Mansfield Clarke, died at Brighton after a lingering illness, on the 7th September, in the 78th year of his age.—The Academy of Medicine, Paris, have elected M. Lavres as President, M. Cruvelhier, Vice-President, and M. Devergie, annual Secretary for the ensuing year. Mr. H. Dubois (d'Armiens) retains his post as Perpetual Secretary.—Several of the members of the London Pathological Society have presented Dr. Quain with a handsome silver salver as a testimonial in recognition of his able and courteous services as Honorary Secretary to the Society for the period of five years.—A peasant consulted a celebrated oculist about his eyes, and asked him (whom he found eating and drinking freely) "What shall I do for my eyes?" "Abstain from wine," said the Doctor. "But it seems to me," said the peasant, walking up to him, "that your eyes are worse than mine, and yet you drink!" "True," said the oculist, that is because I love to drink better than to get well.—Punch's counter-blast for Puffing :—

"My son, each rogue eschew
Of the advertising pack,
He's generally a Jew,
Invariably a quack."

It appears from statements made by the "Medical Gazette" of Russia, that 382 medical officers attached to the Russian Army, died during the Crimean War. The actual number of such officers employed is not mentioned. In the French Army 550 surgeons went to the East, and 83 of these perished, viz. 1 in 6.

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ORIGINAL COMMUNICATIONS.

ART. XXXII.—*Clinical Lecture on Inflammation and Perforation of the Appendix Vermiformis.* By R. P. HOWARD, M.D., Professor Clinical Medicine and Medical Jurisprudence, McGill College.*

GENTLEMEN,—In my last lecture your attention was directed to the circumstances which caused the death of an old man, a hoary-headed septuagenarian, cut off suddenly, in advanced age, by a common disease. In to-day's, we are to dwell upon those which induced a similar issue to the case of a young woman, in the vigour of youth and health—an issue brought about by an unusual affection.

Bridget D——, a stout healthy woman, aged 22, was admitted into Hospital on the 13th day of January, 1857, in my absence and after the visit. She stated that her bowels had not been moved since the 8th; and they had no doubt been confined then for two days, as she had taken a dose of oil that morning (the 8th), but had thrown it up. The House Surgeon, Dr. Craik, saw her about 8 P. M.; there was slight pain over pubis, but no fever. He ordered an enema; but its administration was imperfect, owing to the instrument breaking.

On the 14th, at the noon visit, I found her complaining of uneasiness,

* This lecture was delivered in January, 1857. A few additions have been made to it since, chiefly in the citation of cases illustrative of the remarks made.

amounting to pain in the abdomen; the pain not severe, nor as much thought of as the constipation and sense of distension. She was thirsty; the tongue rather thickly coated with a dirty yellow-white fur; moist, and not red at edges or tip. There was occasional vomiting, but she did not say much of it; and the emesis was not frequent. The first touch of the abdominal parieties appeared to give pain, but steady firm pressure was well borne. Decubitus natural; knees not drawn up. No distress of countenance, beyond slight anxiety; pulse soft, about 76. A powder, composed of gr. v. Hydrarg. Submur., and gr. xx. Sodæ Sesquicarb. was ordered, to be followed every four hours by a Seidlitz powder, until bowels act.

15th. The powder was retained, but the Seidlitz draughts rejected. No change in the constitutional or local symptoms. Pulse soft, and otherwise normal; wishes more drink; constipation persists; catamenia appearing. To have gr. x. Ext. Colocynth Co., and gr. v. Hydrarg. Submur. in pill, and a large enema of gruel and castor-oil; Sinapisms to epigastrium at intervals of a few hours.

16th. By omission, the pills were not given until seven last evening; and the bowels have not responded. This morning, signs of collapse appeared, and emesis became frequent; the ejecta consisting of thick ropy, bilious-looking matters. At noon the collapse was marked. Face and extremities livid, general surface cold, sunken eyes, pinched features, great restlessness, weakness of voice, pulse small, scarcely perceptible at wrists; tongue cooler than natural, thirst urgent, appearance strikingly like Cholera, abdomen rather tympanitic. Having introduced the long tube about 9 inches it bent upon itself, and, being rather flexible, I could not pass it farther; an enema of warm water and oil returned immediately, unsoiled. A blister to the abdomen, a teaspoonful of wine every quarter of an hour, with small doses of opium and calomel every hour. The enema was repeated, with the previous result, at 2½ P. M., but the collapse steadily increased, then delirium set in, and death occurred at 3½ P. M.

Sectio cadaveri 22 hours after death. About two pints of yellow sero-purulent fluid in general peritoneal cavity; small intestines, and parietal peritoneum attached at many points by recent soft flakes of lymph; the intestinal sulci filled with lymph and pus, and their coils adherent; the serous membrane rather more vascular than natural; no strangulation, invagination, or twisting of the intestines. Ascending and transverse colon contains an abundance of healthy, soft fæces; lower end of ilium of a dark green color, and adherent to situation of the appendix cæci; serous coat of this portion of small intestine and of the

cæcum rather injected, but their mucous coat not at all so. Appendix cæci of a dark green colour; adherent to margin of pelvis, and by its free extremity to the right ovary, which, with the broad ligament of same side, is similarly discoloured; it is also softened, much thickened, and gangrenous, and presents two large perforations with soft sloughing edges. An intestinal concretion, about the size of a marrow-fat pea, occupies its cavity at the site of one of these openings.

This, then, gentlemen, was an instance of an affection, which, although not very uncommon, is yet so infrequent that more than one example seldom occurs in the practice of a single individual—at least in cities of the size of Montreal.

Its infrequency may also be inferred from the silence observed on the subject by most writers on Practical Medicine. None of your ordinary hand-books contain more than a passing allusion to the occurrence of inflammation, or perforation of the Appendix Vermiformis. Even the Cyclopedia of Medicine, so comprehensive in its consideration of medical subjects, pays no attention to this; and the pains-taking and learned Copland devotes but one column of his article on the Cæcum to a brief account of inflammation of its Appendix. Indeed the only English papers that I can refer you to for a tolerable account of the symptoms and progress of inflammation and perforation of the Appendix Cæci are two excellent but brief communications by Dr. Burne, in the 20th and 22nd vols. of the Medical and Chirurgical Transactions—one by Dr. Pepper in the Philadelphia Philosophical Transactions, vol. 1 p. 296, and one by Dr. Lewis in the New York Journal for November, 1856.*

Let this be my excuse for bringing the subject before you at some length to-day. And perhaps the best way to do this will be to read you the particulars of three other cases which have occurred in this city within the past few years. The first occurred in the practice of Dr. Wolfred Nelson, and was published by that gentleman, and by the late Dr. Crawford, in the British American Journal of Medical and Physical Science for 1847, (p. 258). I shall condense the report as much as is consistent with the exhibition of its characteristics.

Rev. Caleb Strong, while otherwise in good health, complained to Dr. Nelson on Friday, 1st, at 3 P. M., "of a fixed pain at the bottom and on the right side of the belly. The tip of the finger can cover the part. The pain is much increased when there is a peristaltic motion of the

* The last two papers were not within my reach when this lecture was delivered. There are numerous cases scattered through the Periodicals, and the subject is mentioned by Dupuytren, Munière, Grisolle and other French authors, in connexion with "Abscesses of the Right Iliac Fossa."

bowels; violent gripings occur every 20 or 30 minutes." No thirst, but dryness of mouth, tongue white, skin cool and moist, pulse 80, and soft. Aperients having been administered, an alvine evacuation was procured in the evening, with temporary benefit. After a restless night, the general symptoms were stationary, but the pain and griping were on the increase, although the bowels had acted; the conjunctivæ acquiring a yellow tinge. A free blood-letting at 3 P. M. was followed by faintness, a "copious liquid stool," much flatus and relief. The calomel was continued every hour. At 7 P. M. he was "better than at any time yet, but that little place is always very painful, and the griping, though less often, is very severe." Morphia was added to the calomel, and a blister applied.

At 2 A. M. on the 3rd, the patient became *suddenly* worse; the surface cool; pulse 90, and weak; pain in the part intense; running down to the anus and end of the urethra; mouth dry. He observed to his physician, "If you could only open that small place, how it would relieve me." 12 leeches were applied. At 9 A. M. the surface had become warm; the pulse 120, small and hard; the abdomen tense, and the pain more diffused. At 1 P. M. the "pain had shot all over the abdomen"; pulse 140, small and hard; breathing hurried; 18 leeches were applied, and a large blister. At 9 P. M. the symptoms much aggravated. He died at 2 A. M. on the 4th. The sectio exhibited, besides general peritonitis, a gangrenous state of the appendix vermiformis, which contained two small portions of gall stone, and a little thick dark fluid. The mucous lining of the cœcum was quite normal.

In the March number of the same journal, and year, Dr. Holmes, Prof. of Medicine in this College, also published an example of the same affection. The subject of it was a large, healthy child of 20 months. "He became indisposed on the night of Thursday, (10th March, 1842), being restless and feverish, but not complaining of pain.

"The next day he was languid and dull, indisposed to exertion, and unwilling to be amused. On the Sunday he appeared better, but on Monday relapsed into a dull, quiescent state, not seeking to leave his bed, disliking the approach of other children, and unwilling to be disturbed, yet without any marked symptom of disorder. He continued without much alteration till Thursday (17th), appearing to have no particular uneasiness, except a feeling of tenesmus, and an inclination to remain a long time at stool. During this time he had taken some doses of laxatives. He had made no complaint of pain or griping; there was no swelling of the abdomen; and no pain had been observed to be felt on handling him.

On Thursday evening, I was sent for, in consequence of a sudden change in the symptoms, and on arriving found the child in a state of collapse—his face pale, skin cold, and pulse nearly extinct. The abdomen was free from swelling; there had been no vomiting; and I elicited no sign of uneasiness when I pressed upon it. He had been put into a warm bath before I arrived, and had appeared pleased for a few moments, by slapping the water in a playful manner, but soon let his head fall back as if exhausted. Ammonia and brandy were administered; but he sank rapidly and expired, apparently quite conscious, and uttering his mother's name."

At the examination of the cadaver, besides a limited peritonitis in the vicinity of the cœcum, a perforation of the Appendix Cæci, with soft diffluent edges, was found. The cavity of the appendix contained a small whitish friable concretion.

Dr. Campbell, our Professor of Surgery, has likewise placed on record the particulars of a case of perforation of the appendix:

On the evening of the 30th July, 1854, L. M., a healthy boy, 11 years old, "was, some hours after eating a hearty meal, attacked with pain in the bowels, vomiting and purging." Next morning, the purging had ceased, but the pain and vomiting continued. Calomel and rhubarb were prescribed in aperient doses every three hours, and a sinapism applied. In the afternoon the pain was referred principally to the right iliac region, which was slightly tender to the touch; in all other parts, pressure well borne. Pulse 84, soft; skin cool and moist. In addition to the powders, prussic acid was given; fomentations applied, and an enema administered.

1st August. Bowels moved freely this morning; pain and sickness much relieved. The retching returned in the evening, and, although slight pain was complained of in the abdomen, it was quite flat and soft, and the pulse only 90. Turpentine stuping was repeated, and a good dose of calomel and opium given.

On the 2nd the symptoms suffered "no material change"; there was, however, "slight tympanitis; the desire to evacuate the bowels was frequent, and the attempts to do so ineffectual"; pulse 100, without hardness. The calomel and opium were continued every four hours; enemata repeated, and a poultice laid on the abdomen.

3rd. Passed a restless night, considerable jactitation, pulse becoming more rapid, tongue furred, tenderness extending over abdomen; no especial fulness to be discovered on the right side, where pain was first

* Medical Chronicle, Oct., 1854, p. 175.

complained of; bowels not yet acted on; vomiting continuing. Croton oil was given every two hours, in half drop doses, and at four o'clock in the afternoon the bowels were once freely moved, with manifest relief to all the symptoms. This favorable change continued till midnight, when there was a recurrence of the former symptoms, but with increased severity. In the morning of the 4th I found my patient's pulse 120 and weak; his tongue was coated, and his features were becoming pinched. There was considerable abdominal tension, and constant vomiting.

A large blister was applied, and the calomel and opium given every two hours. From this period he sunk rapidly, and died about 3 P. M.

The *post-mortem* examination exposed an "intense and extensive peritonitis"; the appendix vermiformis swollen, dark, and perforated; and containing a concretion the size of a pea, and two others about the size of a grape-seed. The edges of the perforation were "soft and livid."

Two other instances of the disease, which occurred in this city, you will find related by the late Drs. Carter and Crawford,—that by the former in the Montreal Medical Gazette, June, 1844, (vol. 1, p. 72); that by the latter in the British Am. Journal of Medical and Physical Science, May, 1847, (p. 17). They are both of much interest; but Dr. Carter's case is remarkable, as affording a proof of the occasional (very seldom, it is true) spontaneous discharge through the abdominal walls of the products of the inflammation, excited by disease of the appendix vermiformis.

A close examination of the four cases I have related, and of others recorded, justifies the assertion, that inflammation and perforation of the Appendix Vermiformis may present the following clinical features during life:—

1st Group. Slight restlessness, apathy and feverishness; absence of pain and of all abdominal uneasiness, save a feeling of tenesmus; the sudden occurrence of collapse without tenderness, pain or tension of abdomen, or any of the usual symptoms of peritonitis; death occurring rapidly.

Dr. Holmes' case illustrates this group.

2nd Group. Mere general discomfort and uneasiness, or declining health; no symptoms of abdominal or intestinal derangement, until the sudden manifestation of the symptoms and signs of general peritonitis consequent on perforation of the appendix,—death ensuing in 24 hours, less or more.

Parkinson's case in Medical Chir. Transactions, vol. 3, page 57, illustrates this.

3rd Group. The symptoms and cause very much those of ordinary intestinal obstruction: thus, pain in the right ilio, inguinal or supra-pubic region; nausea, vomiting, constipation, some abdominal fulness; absence of all inflammatory symptoms as indicated by the pulse, countenance, skin, and state of abdomen; the constipation does not yield to rather active purgatives and enemata; suddenly, symptoms of peritonitis, with collapse and death in 24 hours.

My own case illustrates this group.

4th Group. Same features as last, except that pain is more marked and more fixed in right iliac fossa, and the bowels yield to active purgatives, but the relief is only temporary, and slight in degree; suddenly the symptoms of peritonitis, early collapse, and speedy death.

Illustrated by Dr. Nelson's case.

" " Dr. Burnes' 7th case, Med. Chir. Trans., vol. xx., p. 224.

" " Dr Marsh's case, Dublin Med. Journal, vol. 18, p. 337.

5th Group. Symptoms and signs of local circumscribed inflammation in the right iliac fossa; (pain, tenderness and fulness there; hot skin, quick, small pulse; vomiting and constipation;) these succeeded by gradual sinking and death, a distinct, deep-seated tumour forming or not in the right iliac fossa; or, by recovery, abscess forming and opening internally, or more rarely, externally.

Illustrated by Dr. Burnes' 6th, 8th, and 13th cases, Lib. Cit., 20th vol., p. 226, and vol. 22, p. 47.

" " Dr. Carter's case.

" " Dr. Ogier Ward's case, Med. Times and Gazette, April, 1855, p. 353.

6th Group. Same invasion and progress as last, except that *suddenly* there are symptoms and signs of *extension* of the inflammation over the *general* peritoneum, and death is accelerated.

Illustrated by Dr. Burnes' 15th case, Lib. Cit., vol. 22, p. 55.

" " Dr. Law's case, Dublin Med. Journal, vol. 18, p. 336.

" " Dr. Paterson's case, " " vol. 26, p. 412.

Diagnosis.—As regards the diagnosis of this affection, inflammation, ulceration, and perforation of the appendicula vermiformis—it is quite obvious that in the first class of cases in which the symptoms are latent throughout, mere collapse preceding death, as in the example related by Prof. Holmes, no correct opinion can be formed.

2. The second class, where there is an absence of all evidence of intestinal derangement, until the sudden irruption of the symptoms of intense peritonitis is also beyond the reach of positive diagnosis, the sudden outbreak of the general peritonitis may be referred to perforation of the

cæcum, colon, duodenum, *ilium* or stomach, as well as to perforation of the appendix cæci, or to exposure to cold, or to the presence of renal disease, (Brights' kidney), or to the extension of disease from the ovaries, etc.

Fortunately these two classes are very rare.

3. The third class of cases, those in which there are the symptoms of obstructed bowels, without those of inflammation, the constipation not yielding to rather active purgatives, and symptoms of acute peritonitis suddenly setting in, cannot, in my opinion, be distinguished from cases of *obstruction*, dependent upon twisting of the intestines, incarceration of them by false membranes, holes in the mesentery, malformations of the omentum, etc.; reduction of the calibre of the bowels by chronic structural diseases, or perhaps spasmodic or simple over distension and enlargement of the colon etc.*

It was to this class that our patients' case belonged, in her the symptoms were nearly those of ordinary obstruction, there was slight abdominal pain, unyielding constipation and occasional emesis. but neither flushed face, hot skin, quick sharp hard pulse, nor decided abdominal tenderness, and these circumstances together with the short period she was under my observation, extenuate at least, if they do not excuse my referring the symptoms to obstruction of the bowels with probably slight enteritis, rather than to destructive inflammation of the appendix vermiformis. However, from what I have read on the subject, I am disposed to regard such cases as Bridget D.'s as of very rare occurrence.

4. The fourth class of cases, those in which together with the symptoms of obstructed bowels there is a fixed severe pain in the right iliac fossa, and the yielding of the bowels to purgatives is not followed by striking and *permanent* relief, may be known for *mere obstruction* of the bowel, the condition with which it is most likely to be confounded, chiefly by the following circumstances,—the pain begins at and occupies the natural situation of the appen lix, it is often quite circumscribed—and deep pressure may elicit tenderness and detect perhaps a fullness or even tumour there, and lastly and chiefly the evacuation of the bowels by purgatives and general treatment, is not followed by permanent relief the pain and other symptoms continue and advance, or if temporarily relieved return speedily in their former violence.

Now, intestinal obstruction is not necessarily situated in the right iliac fossa, and the evacuation of the bowels by medicine is followed by immediate, and, as a general rule, permanent relief. Moreover, the consti-

* See case by Dr. Banks, Dublin Quar. Jour., new series, Vol. 1, p. 235.

pation which attends inflammation of the appendix generally yields to active purgatives, which is not the case in intestinal obstructions, and the former is less often attended by fœcal vomiting than the latter.

The fifth and sixth classes of inflammation of the appendix will be known from intestinal obstructions, not only by the deficiency just mentioned as existing between this affection and the fourth class of cases; but also by the existence of the local and general symptoms of inflammation from the first, whereas these symptoms succeed those of obstruction in case of obstructed bowel.

It is a much more difficult matter to distinguish inflammation of the appendix from *inflammation* of the *cæcum* or typhlo-enteritis; indeed in many instances I incline to think it cannot be done.

Both affections frequently occur in healthy persons, free from previous derangement of the bowels unless it be constipation; but the symptoms are generally more acute, and the issue more rapidly and certainly fatal in the former than in the latter; death often ensuing in the former in from 3 to 8 or 10 days. In typhlitis the progress is less rapid, and the termination less fatal; the action of the bowels is more frequently followed by relief and recovery; ulceration and perforation are much less common, and when they do obtain, they are more prone to cause lumbar or iliac abscess than to open into the peritonæum, just the opposite of the tendency of perforation of the appendix. Signs of fœcal accumulation are less obvious in perforation of the appendix than in inflammation of the cæcum; the former affection occurs at all ages from infancy to senility, the latter most frequently in adults. Moreover, some of the causes of the two differ. Thus typhlo-enteritis is not unfrequently caused by kicks and blows over the region of the right iliac fossa, and occasionally even by the pressure of a hernial pad, while the appendix from its small size and peculiar situation very seldom suffers from external violence or pressure. I know of only one instance in which a kick seemed to have excited this affection, and in that a concretion was found in the appendix.*

Inflammation of the cæcum is said to be occasionally consequent upon suppression of the catamenial or hæmorrhoidal discharge, that of the appendix acknowledges no such origin; a frequent cause of inflammation of the cæcum is the accumulation of hardened fæces in its interior, producing palpable tumour, having the shape and site of that portion of the large intestine; now, although, inflammation of the appendix may be occasionally excited by the entrance into it of hardened fæces, yet this is rare, and when it does occur, no palpable tumour exists at first, much

* Transactions of the Pathological Society, London, Vol. vii. p. 212.

less one having the volume and shape of cæcal stercoral tumour. Lastly, while the eating of indigestible and acerb fruits is an alleged cause of both affections, in inflammation of the appendix the fruit is usually if not invariably of a kind which contains stones, such as plums, cherries, or large hard seeds, as raisins, apples, pears, etc.

Perforation of the *cæcum* by ulceration also produces symptoms very similar to the affection under discussion, but then it would appear to be a much less frequent lesion than perforation of the appendix, the discharge is also of much longer duration, being an affair of weeks or months, while perforation of the appendix so far at least as its symptoms are concerned is one of days merely, or in very rare cases of two or three weeks; the former is generally preceded for weeks by ill health, deep-seated pain and tenderness in the right iliac region and diarrhœa, the evacuations being tinged or streaked with blood, whereas the latter occurs indifferently in the healthy or the infirm, and is not preceded by symptoms of intestinal derangement. When the perforation occurs in the former case, the most frequent consequence is the formation of a fæcal abscess external to the peritoneum which commonly points either above Pouparts' ligament or at the outer edge of the quadratus *lumborem*, often causing much sloughing of the integument and deeper tissues, and discharging pus and feculent matter; in perforation of the appendix the most frequent consequence is a more or less extensive peritonitis, most developed in the pelvic cavity and vicinity of the cæcum; circumscribed abscess is less frequent, and when it does occur, is generally within the peritoneum and has very little tendency to point externally, but very much to open into the general peritoneum. Indeed this is a very valuable point of distinction between the two affections—for while in perforative disease of the cæcum the collection of pus usually tends to open externally, in perforation of the appendix this seldom if ever occurs, so seldom that I know of only one well authenticated instance,* that already spoken of as having been published by the late Dr. Carter of this city.

One remark more before speaking of the treatment suited to the disease under examination; although the appendix may become highly inflamed, ulcerated and even extensively destroyed by sphacelation, the morbid action extends with extreme rarity to the cæcum itself. In nearly all the reported dissections of these cases where the

* In Dr. Burns sixth case, (Med. Chirur. Trans. Vol. xx. p. 22,) a post peritoneal abscess formed; and in his eighth, sloughing of the iliacus muscles and post peritoneal cellular tissue occurred, yet in neither case was there any sign of the pus escaping externally.

state of the mucous coat of the cæcum is alluded to, it is stated to have been normal. The morbid action is essentially local, and excited by a local irritation, usually mechanical. We have another illustration of this tendency to the localization of morbid action where the operation of the cause is chiefly local, in some cases of strangulated hernia; the strangulated portion of the intestine with a portion of its covering sloughs and is separated, and the patient recovers with an artificial anus; so in some cases of intus-susceptio where the powers of life are maintained, the invaginated portion alone perishes, and the continuity of the canal is preserved without the morbid action involved in the process extending to adjacent or continuous portions of intestine. The operations for the radical cure of hernia are based upon the same pathological law. The surgeon expects to excite a localized inflammation in the part, which shall not propagate itself to the general peritoneum for integuments.

The *treatment* which I am disposed to advise in this generally fatal affection, is that suggested by the nature of the case. The exciting cause being almost invariably a foreign body in the appendix, and therefore beyond the reach of direct removal, we should attempt to moderate and control the inflammatory action excited by its presence, and favour the efforts of nature to circumscribe and isolate by adhesion and false membrane the diseased part and the products of suppuration and gangrene, or to extrude them from the system.

With this view, when from the circumstances of the case we infer the early existence of inflammation in the appendix we had better leech the part freely, reapply the leeches every 18 or 24 hours for two or three times, and soothe the part by fomentations and poultices. At the same time small doses of calomel and opium should be given to the extent of producing the specific effects of mercury and keeping the pain in abeyance. I would not recommend any but the mildest measures for the evacuation of the bowels, such as emollient enemata, and small doses of Epsom or Rochelle Salts, or Soluble Tartar, largely diluted, or castor oil, if the stomach will tolerate them. If there is much emesis, the salines may be given in effervescence, or a mild aperient pill may be tried, but enemata will be the most likely to agree and succeed.

When the signs of tumour become well marked, and we suspect a circumscribed peritonitis, absolute rest is an essential item in the management of the case; any premature muscular effort being very likely to break the tender adhesions or fresh lymph by which the diseased part is surrounded.

If fluctuation can be felt, or if the tumour appear to approach the surface this should be promoted by frequent fomentation and poulticing;

but this tendency towards the surface does not appear to be common in this affection. Dupuytren* made an incision into the abdominal parietes in a case apparently of this kind, and evacuated a considerable quantity of fœtid pus, the wound remained fistulous, and the patient survived 13 months with four fistulæ communicating with the seat of disease. In 1848 Mr. Hancock published a case† of perforation of the appendix in which he made an incision into the abdomen, evacuated a quantity of offensive turbid serum, with fibrinous flocculi, followed in 13 or 14 days by two small balls of fœcal matter, surrounded by calcareous deposit, which from their size he imagined must have escaped by ulceration from the appendix. The woman recovered. The circumstances which would justify incision or puncture in a case of this kind, in my opinion, are the following:—A palpable tumour, emphysematous or fluctuating, and the presence of symptoms indicative of sinking, or, of well marked, typhoid symptoms,—the treatment, so far, having been of no avail. It is, however, an operation not to be rashly performed, and all the circumstances of the case should be well weighed before deciding upon its necessity. Throughout the case, the patient's strength and resources should be maintained by broths, jellies, juice of beef, &c.; and by quinine and stimulants, when suppuration has occurred, or typhoid symptoms threaten. It is said the matter even in this affection has made its way into the bowel, and the patient has recovered.

ART. XXXIII.—*Cases of Uterine Polypus.* By Dr. Sheriff, Huntingdon.

Having lately treated three cases of uterine polypus successfully, without the aid of any of the numerous instruments recommended for the extirpation of these tumours, by many eminent surgeons, I thought that it might be useful to relate my mode of procedure, as I believe that many practitioners have been deterred from operating because they thought they were not possessed of the requisite instruments.

The first case I treated was a Mrs. Graham, aged 40, the mother of seven children, the youngest eight years old, her husband still alive. I visited her first at 11 a.m., the 24th August, 1856. Says that she has had her menses regularly since the birth of her last child, but that for over two years they have been profuse, lasting generally nine days, and frequently discharging clots. Has been much weakened thereby. Began menstruating this time on the 19th inst. Yesterday the 23rd, was seized with pains coming at regular intervals, like the pains of labour.

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* Lecons Orales, t. 3, pp. 521.
† Ranking's Abstract, vol. 8, p. 284.

Are very severe at present, coming on every five minutes accompanied with a signal discharge of a dark coloured watery fluid. Has severe pyrexial symptoms, pulse 120, lower part of abdomen tender. On examining her vagina I found the mouth of the uterus dilated, and a fleshy substance like a placenta protruding an inch and a half. About 2 p.m. the pyrexial symptoms ceased with profuse sweat, pulse becoming natural. Fever returned in about three hours, and as the pains continued very severe, accompanied with great faintness, nausea and vomiting, I administered an enema of laudanum and starch, which soon gave relief.

25th, 8 a.m., had severe pains all night, but had ceased. On examination I found the vagina filled with a soft tumour, pulse 120, has constant vomiting. I made several attempts to pull the tumour through the external parts, by pulling with a finger hooked through the tumour, and also with a hook but failed, partly owing to the excessive faintness which each attempt caused. Ordered beef tea, enemas, and small doses of morphia and quinine.

26th. Still vomiting, continue the enemas and anodynes. Vagina to be regularly washed.

27th. Has rested well, vomiting ceased. Great fœtor from vagina. Again attempted to extract the tumour, and tried to detach it from the uterus. I succeeded in getting a finger up to the insertion in the uterus and pinched off a portion, but was again obliged to desist from the syncope which came on. Continue washing out the vagina with warm water, and a weak solution of chloride of lime.

31st. During the last few days has improved and feels much better, pulse 110, of good strength. Continued discharge of a terribly fœtid dark green coloured fluid from vagina. I again attempted extraction and this time succeeded in extracting a large portion much decayed and awfully fœtid. I tied a ligature round the base of the tumour to facilitate matters afterwards, and cut off what was extracted. Continue the quinine and the washings of the vagina with the enema pump.

Sept. 5th. Remains of tumour separated yesterday. Fœtid discharge still continues, but not so abundant. Had severe rigor and high fever last night, pulse 90.

7th. Complains of pain in calf of left leg. On examination I found it hard and swelled, and veins in thigh tense and painful. Her leg continued swelled and painful for a few weeks, but she eventually recovered and is now in perfect health. Her menses returned at the proper time, and have continued regular ever since without any hemorrhagic symptoms. This may be called a case of spontaneous cure.

Case 2.—Miss Ross, aged 30, a large sized woman, but pale, and has an anemic appearance, consulted me first in November, 1855. States that about 18 months ago four of her menstrual periods were attended with severe pain and the discharges of pieces of membrane. Since then her menses have been very profuse, always lasting over a week, and frequently much longer. I made an examination and found the uterus apparently tumified, but could discover no tumour. I gave her infusion of matico and ergot, and applied blisters to her back, and made her use acetate of lead injections. Under this treatment she partially recovered but occasionally had severe hemorrhage. In the fall of 1856, she went to Montreal, and was for several months under the medical charge of an eminent practitioner there. For four months he pursued an almost similar treatment. He then discovered by the speculum ulceration of the cervix and cauliflower excrescences, which were removed by the Potassa cum calce. Miss R. returned home in May, much improved in health and apparently cured. Her menses were not profuse, and she was stout and had a healthy appearance. In October hemorrhage again began, and now it was almost again continuous and not at intervals as before. She again consulted me in the middle of February, and on examining I found a firm round fibrous substance partly protruding through the os uteri. Being able to pass my finger round it, I knew it must be a polypus. I commenced giving her ℥ i. tincture ergot three times a day, with injections into the vagina of tannin and acet. plumbi. I continued this treatment for six days, and I then found that the uterus had still farther expelled the tumour. I now proceeded to tie it in the following manner. I placed my patient on the edge of the bed half reclining and half seated, with her feet resting on a bench, and legs well separated. I now introduced two fingers of my left hand into the vagina, and grasped the tumour, pulling it slightly down. I then cautiously introduced a long tenaculum, and hooked it firmly into the base of the tumour. I now pulled steadily downwards until it nearly reached the perineum. I now gave the tenaculum to an assistant to hold, and I slipped over it and then over the tumour a stout cord, until it reached the navoid pedicle. I then drew the knot as tightly as I could and removed the tenaculum. Next day everything was going on well, and a slight fœtor was felt from the vagina, on the second day I applied another ligature for fear the first should become too soon slack. This precaution, however, was unnecessary. On the third day from the application of the first ligature, they both separated, and I extracted the tumour without any difficulty. It was firm, hard and white, about the size of a pigeon's egg. No untoward symptom occurred in this case, and my patient soon made a good reco-

very. She had her menses the week following the separation of the tumour, but the discharge was scanty and only lasted a few days.

Case 3.—A feeble, sickly looking Canadian woman, about 50, called at my house on the morning of the 22nd March. She stated that for two years she had been labouring almost constantly under a hemorrhage from the vagina, which prevented her from working and had wasted her strength. I examined and found a soft polypus, like the preceding case hanging from the fundus of the uterus by a navoid neck. The uterus was open, and the pedicle could be easily reached.

On the 23rd I proceeded to the woman's house, and tied it precisely in the same manner as the last.

On the second day a green fœtid discharge began to come from the vagina, and on the 26th four days after the application of the ligature it separated bringing with it only a little skinny substance. The bulk of the tumour having previously rotted away. Every thing went on well, and the woman is now in good health. It will be noticed that the tumours in the two last cases came away much more speedily than the time laid down in books. The first coming away in three days and the last in four. The usual time being from six to twenty-one days. I am inclined to think that the early separation in my cases was caused by the tumours being tied while the pedicles were stretched and consequently narrower. When the strain was removed the pedicles shrunk up again, and in this manner tightened the ligatures. The pedicles in both cases were about the size of a goose quill.

Surgical Expedients.—For a number of years I have used a blunt silver probe bent into a hook, to remove foreign bodies from the nose, such as peas, indian corn, beans and slate pencils.

For many years I have used pessaries made of bees wax, which are far superior to any that can be bought, as they can be moulded into any shape, are cheap and very durable. For many years I have used tumblers and wine glasses, and even tea cups, for cupping, as they are better than cupping glasses, and they can always be procured without difficulty.

Francis Sheriff.

REVIEW.

ART. XXVIII.—*The enlarged Prostate, its pathology and treatment; with observations on the relation of this complaint to stone in the Bladder.* By Henry Thompson, F. R. C. S., M. B., London, Assistant Surgeon to University College Hospital; consulting Surgeon to the St. Mary-le-bone Infirmary, etc. 1858. pp. 320. London: John Churchill, New Burlington Street.

Mr. Thompson has, in the work before us, completely exhausted the subject of Prostatic disease, and we are much mistaken if his book will not always hold a high place among special treatises of a classical character. His views on many points connected with the Prostate differ materially from those ordinarily held, and to such points, therefore, we will more particulary direct the attention of our readers.

In a paper published in the "Philosophical Transactions" for 1806, entitled "An account of a Small Lobe of the Human Prostate Gland, which has not before been taken notice of by Anatomists," Sir Everard Home announced the existence of a third or middle lobe of the prostate, situated beneath the neck of the bladder, and adjacent portion of the urethra, and consisting of a rounded or triangular mass intimately connected with the two lateral lobes and fitted in between them on the under side. He formed his opinion after the examination of five organs dissected by Sir Benjamin,—then Mr. Brodie. Since his time British Anatomists and Surgeons have continued to describe the gland as being formed of three distinct lobes. Those of the Continent, however, seldom give such a description of its arrangement. Mr. Thompson ignores the existence of a third lobe as a part of the normal anatomy of the organ, and he does so on the strength of the information which he derived from the careful dissection of upwards of sixty specimens of the prostate. His description of the conformation of the gland is so lucid, and agrees so perfec ly with our observations that we give it in his own words: —Two lateral divisions or lobes make up the greater portion of the mass or body. Each may be supposed to resemble in form a truncated cone with a convex base. These being placed side by side, with a small interval between them for the urethra, the outline of the body is indicated, and may be tolerably well represented by the conventional form of heart which is seen on playing cards, excepting that the width requires to be increased relatively to the length. Between these two lateral parts the prostatic substance is continuous above and below the canal; in the first named situation, forming a stratum which extends forwards to the

apex, but not quite to the base of the organ. Below the urethra another stratum extends throughout the whole length of the lateral lobes, and is thus about one-fourth longer than the upper stratum. It is, as a rule, thicker also, and much more so behind than before. In the centre of its base the two ejaculatory ducts, closely applied to each other side by side, enter a funnel-shaped cavity, in its substance situated usually about three or four lines beneath the posterior urethral orifice. These are directed forwards and a little upwards (in the erect position of the body) from the base to about the centre of the organ at the verumontanum. That portion of the posterior uniting stratum which lies above these ducts, is that to which the name of "third" or "middle lobe" has been given; and this part it is which often appears to increase most rapidly when disposition to enlarge is present. It then becomes more or less lobular, being spheroidal or pyriform in shape, by development upwards towards the cavity of the bladder, but in a condition of health does not appear to be so. It might be named "the medium portion," or, better still, "the posterior medium portion," as more correctly indicating the part referred to; at all events, as not involving assent to the disputable theory which assigns to it an independent anatomical character. This lobe was well known to some of the earlier pathologists, who recorded it as belonging to morbid anatomy. Morgagni, in particular, described it under the name of "caruncle," being "beyond a doubt an excrescence of the prostate gland." Valsalva, Valisneri, Santorini and others held a somewhat similar opinion. According to Prof. Gross, who is one of the greatest living authorities on all subjects connected with the urinary organs and their affections, this lobe is not always found in the normal state of the organ. "It is," he says, "of a rounded form, and of variable dimensions; it rarely exceeds the volume of a pea, and is sometimes so small that it can hardly be said to exist. Indeed, the most careful dissection occasionally fails to detect it."

A knowledge of the average size and weight of the prostate is of considerable importance for a correct appreciation of its various diseases and for the proper performance of the operation of lithotomy. The measurements in the adult, as given by our author, are:—From base to apex, $1\frac{1}{4}$ to $1\frac{1}{2}$ inch; greatest transverse diameter, about $1\frac{3}{4}$ inch; greatest thickness, about $\frac{5}{8}$ to $\frac{7}{8}$ of an inch. These agree nearly with the dimensions given by Senn and Gross. The former found the gland to measure nineteen lines in width at the centre of its transverse diameter, and only thirteen lines at its vertical direction along the middle line. Radii diverging from the urethra to the circumference of the organ, measure, towards its inferior and middle part, from seven to eight lines, directly

outwards, nine lines, and towards the inferior and external part, from ten to eleven lines. The latter observer found the average length to be twenty-one lines, the width eighteen lines, and the thickness nine lines. All these measurements are less than those of Dupuytren, on which his calculations for the bilateral operation in lithotomy were based. He represented the prostate as measuring twenty to twenty-five lines in its transverse diameter, and ten to twelve in thickness. The extent to which the incision through the prostate should be made in lateral lithotomy, may be approximately determined by ascertaining from these measurements "the length of a line directed downwards and outwards from the centre of the urethra (which may be regarded as corresponding in the operation with the bottom of the groove in the staff) to the outer border of the organ at its vesical extremity. This line may be considered as falling midway between the horizontal and vertical planes, forming with each, therefore, an angle of 45°, when the patient lies in the position for lithotomy. It may be accurately deduced from the form and measurements given above, and has been verified by numerous actual sections of the organ. Average measurements of healthy prostate in direction described $\frac{7}{8}$ of an inch. Ditto of small prostate, weighing under four drachms, $\frac{3}{4}$ of an inch." Mr. Thompson finds the prostate to weigh rather more than four drachms and a half; Prof. Gross about five drachms, whilst in different anatomical works it is represented as weighing between six and eight drachms.

Senile enlargement of the prostate is a most troublesome and intractable form of prostatic disease. It is emphatically an affection of old age, although many aged persons are quite exempt from it. Various causes have been assigned for its production. The etiology however is in a most imperfect condition. There are doubtless many causes, such as excessive venery, gonorrhea, &c., which are real exciting causes; but many others, such as gout, rheumatism, sedentary habits, horseback exercise, &c., are purely conjectural, and have been advanced in that haphazard kind of way which has done so much to invest medical subjects with an uncertainty which is sometimes bewildering to the student. If observers were to form their conclusions only after careful investigation of numerous cases, instead of jumping, as is too often done at present, at an opinion from observation of an isolated case, fewer errors would creep into the science and practice of medicine. It needs only that some celebrated man, or one having a certain notoriety in the medical world, record a case that has been preceded or ushered in by some singular phenomenon, or where some marked and anomalous symptom has declared itself during the progress of the disease, that

once authorize the medical book-maker to award a place to such phenomenon or symptom in the etiology or symptomatology of the particular disease referred to. Thus we find in modern works of medicine and surgery, which are commonly the labour of the mere compiler, the most opposite and contradictory conditions stated to be, on the authority of Prof. A and Dr. B, predisposing or exciting causes of the same morbid state. This is markedly exhibited in the works of those who have written on senile hypertrophy of the prostate. "Almost all known causes of disease in general have been alleged to be so, of this one in particular. Every diathesis—gouty, rheumatic, tubercular, syphilitic—has been arraigned as the offending cause. Every form of local excitement possible to the pelvic viscera has been similarly held accountable. Thus it follows that the bearing of any single circumstance becomes neutralized in the concourse of numbers. Every proposition finds its refutation in the presence of some other one among the multitude." (p. 64.) In fact there is nothing in the particular mode of life of the individual or in pre-existing disease which we would be warranted in regarding as an operating cause in the production of hypertrophy of the prostate. In simple terms, it appears to be a disease to which old persons are liable, but which is by no means a necessary or usual concomitant of age. The structural elements of the gland have a tendency to hyper-development, which tendency increases and is more apt to become manifest with the advance of years. And lastly, everything which tends to produce congestion of or determination of blood to the organ may determine the action of this tendency, or if the hypertrophy has already begun to assist materially in its progression.

The effects of enlarged prostate in relation to the functions of micturition and to the condition of the bladder are exceedingly important. M. Mercier has lately pointed out that true *incontinence* of urine in old persons is very rare; and Mr. Thompson believes that as a consequence of prostatic hypertrophy it never exists. Involuntary micturition is a common and troublesome phenomenon in elderly persons, that has been usually referred to a paralytic condition of the bladder, instead of being attributed, as it should be, to mechanical obstruction. It has been supposed that the bladder may be paralyzed in its body while the neck retained its nervous supply; or the neck be paralyzed while the body remains unaffected. In the former case, the bladder becomes unable to expel its contents, and retention of urine is the result; in the latter the outlet of the bladder is open, and consequently offers no obstruction to the flow of urine, which escapes from the bladder as fast as it is conducted into that viscus from the kidneys by the ureters. This is true

incontinence of urine. The term, however, should not be applied to that involuntary micturition which is the result of the mechanical obstruction caused by the pressure of an enlarged prostate. The conditions present are the very opposite to each other, and, therefore, by applying the term *incontinence* to both, it is certain to give rise to incorrect notions regarding the pathological state, and mislead the practitioner as to the treatment necessary to be adopted. When considerable obstruction to the flow of urine is caused by an hypertrophic prostate, the patient may not be able to expel his urine by a voluntary effort. The bladder thus becomes permanently distended by an accumulation of the urine, unless it be drawn off by the catheter, and the fluid gradually increasing in quantity opens out the orifice and escapes spontaneously. "The bladder is, in fact, *engorged*, and the urine *overflows*." The results in their orderly sequence are Retention—Engorgement—Overflow.

"Real incontinence, then, is a rare occurrence in the adult male. That it is so is one of the most salutary and important lessons which the student can learn. It should be held as an axiom, the importance of which it is impossible to overrate, that AN INVOLUNTARY FLOW OF URINE INDICATES RETENTION NOT INCONTINENCE." (p. 88.) The most common appearances which the bladder presents in these cases are hypertrophy and dilatation. In long continued and extreme cases the ureters and pelvis of the kidney also become much dilated. Sacculation of the bladder is also common. It commences as a mere indentation, which gradually enlarges, and is formed by the protrusion of the mucous membrane through separated fasciculi of the muscular structure of the organ.

We have merely adverted to one or two of the many new and interesting points which Mr. Thompson has brought forward in his excellent treatise. Want of time prevents us from dwelling so fully on the subject as we intended at the commencement of our notice. We advise our readers, however, to get the work and make themselves individually acquainted with its excellencies.

CLINICAL LECTURE.

(*From Virginia Medical Journal.*)

On Ready Diagnosis. By Prof. FORGET of Strasbourg.

"Qui voit tout, abrége tout."

"The art of diagnosis consists essentially in the combination of all the elements which can aid, directly or indirectly, in the elucidation of diseases." This incontestable axiom is made to do good service by the investigators of our day, who are prone to exaggerate the value of each of the thousand minute details with which they are occupied, sometimes

before their reality even has been sufficiently established. To this fever for inventions, this accumulation of hypothetical and often contradictory results, the name of "progress" is given. Be it so! Science indeed advances and is enriched daily; but it is in much danger of being buried beneath its mass of treasures, unless some one shall arrange them, assorting the crude products, and assigning to each its degree of value in every day practice. This nobody seems ready to undertake. Every one brings his grain of sand to the edifice, no one directs where it shall be placed; there are laborers in cohorts, but no architects, for we cannot so designate even the best of our authors of treatises on practical medicine. Once a book on practice was an event, and when Fernelius, Sydenham, Stoll, Borsieri, Cullen, or Pinel, published the results of long and conscientious study and meditation, their magistral works made a deep impress on the field of science, and commanded the attention of the world. Now-a-days ten neophytes set to work,* separately and silently, and relate what others do before they have learned what they will do themselves, commencing the novel by the last chapter, as the saying is, with the sole object of gaining by the speediest road a place at the professional banquet.

Hence we examine these compilations in vain for those large views which open up new horizons and strip the veil from obscurities. We find no harmonious whole, no lucid simplification. Open any modern pathological treatise you please at the article *Pleurisy*, for example, you will be told that inspection, palpation, mensuration, percussion and auscultation serve to diagnosticate this disease. The enumeration is exact, but as to any comparisons or reflections on the relative value of these various semeiotic means, they are not to be found, and the student is left to attach the same importance to dullness and to egophony; it will be unhappy for him, indeed, if the author does not insinuate that resonance and amphoric murmur are the rule, under pretext that these phenomena have lately been observed in a few cases of pleuritis. Turn over to *Typhoid Fever:* you will learn that fever, prostration, delirium, the fuliginous tongue, cœcal gurgling, epistaxis, diarrhœa, etc. are the fundamental features of this affection, whence it results that all these symptoms have the same significance which is requisite in order to inculcate the idea of a general affection, *totius substantiæ*. When you encounter in practice typhoid fevers without a typhoid state, or frank phlegmasiæ

* It is scarcely necessary to remind the reader that a number of the recent German and French works on practice have been compiled by association of from three to twenty collaborators.—*Trans.*

presenting the same phenomenal portraiture as is here ascribed to typhoid fever, you may get on as best you can. It is thus that confusion is eternalized; it is this want of comparison and logic which perpetuates chaos and maintains the authority of our modern augurs.

"A disease, that is to say, a group of morbid elements, being given, ascertain the order of their subordination over to the other," or the degree of influence which each of them exercises on the rest. The mode in which this problem has been comprehended and solved, is in truth the history of medical science, for it immediately conjures up every system of doctrine. According to the ideas which have prevailed on the nature and essential elements of disease, vitalism, humoralism solidism etc. have flourished or decayed. We do not propose to enter on this vast subject. We accept the notion of diseases commonly presented and ask for a thread to guide us through this immense labyrinth. In the first place, we may lay down: 1. That in a practical point of view there is no single essential element for all diseases, that is to say, that each of the exclusive doctrines is vitally defective and inadmissible; 2. That the principal elements vary or may vary in each class of diseases; thus in a given neurosis, the element strength or the element debility may alternately dominate; 3. That this same variability, in a practical point of view, of the dominant elements, may present itself in each disease or in each particular patient. The demonstration of these propositions, which remove us far from the exclusive vitalist, organicist, and chemical doctrines, would embrace the entire field of pathology. We will attempt, however to sketch a general outline, to suggest the processes by which a solution of the proposed problem should be attained.

We know that there are dominant and subordinate, morbid elements. But our ignorance of the primary, essential, really dominant elements is often so great, that, to our astonishment, we often see a secondary or apparently accessory element assume a predominant importance in a therapeutic point of view. Such in a multitude of cases is the element *pain*. This fact does not imply the absolute pre-eminence of this element. The toxic principal is the essential element in cases of poisoning and in contagious and infectious disorders, in syphilis, variola, typhus, etc. The rational indication is to eliminate or neutralize the toxic agent. But it is only in the minority of cases that we have the ability to do this; yet we still cure intoxications for which we have no direct antidote. Sometimes this is by allowing nature to act, as in the febrile exanthemata. In other cases, it is by combatting the effects of the poison, and keeping the patient alive till its virulence is exhausted, an inpoisoning by acrid or narcotic substances; and though, in these cases, we direct our

attention to the secondary elements, to the inflammation or adynamia, the poison indirectly opposed is still the capital element. It is this that renders the maxim *naturam morborum curationes ostendunt* a most fallacious one, for it would require us to admit as many essential natures in the same disease as there are therapeutical methods applicable to it.

Having premised thus much, let us enquire what are the sources whence the so called primary or capital elements of diseases are to be derived. Of these sources, the most natural is unquestionably afforded by *etiology*, as indicated by the aphorism *sublatâ causâ tollitur effectus*, an aphorism as delusive as the last. We have shown elsewhere the obscurities and fallacies which often oppose the search for the real causes of disease, and have concluded that the causes of importance as regards treatment are constitutional causes difficult to reach, which happily do not always prevent recovery. So that this etiological doctrine, so imposing at the first glance, has a much more limited application than is commonly imagined, as we have shown in speaking of poisoning.

The most fruitful source whence important and positive elements of disease are to be derived is, despite what is said to the contrary, organic and functional *symptomatology*.

It is true that behind an inflamamtion or other organic lesion, there may exist, and often does exist, a general or special cause; but too often, alas! this cause is occult, and quite beyond the reach of remedies. We are forced then to come down to the obvious phenomena, and to accept them, at least provisionally, as primary elements, especially when the other phenomenal details of the disease naturally flow from them. Such are, in general, idiopathic inflammations; such are certain diathesic affections even, as tubercle and cancer; such certain functional diseases without appreciable material lesions, designated neuroses. The best that we can do in these cases is to attack the visible and tangible element, else we strike in the dark, and may deal a blow to the patient rather than to the disease.

In a practical point of view, then, the so called organic or symptomatic classifications of diseases are less vicious than they appear. They are as rational as circumstances permit, inasmuch as they express the positive facts, beyond which we can ascend only by inductions which practical experience and humanity condemn: *nil magni facias ex mera hypothesi*.

The *progress* of diseases is a more limited but less certain source of capital elements. Thus the intermittent character of disease is often of such predominant importance, as to be the one fact to be taken into consideration, as in pernicious fevers. The slow or rapid, acute or chronic,

progress of a disease is also a major element, which is the basis of most important practical determinations; for just as it is imperiously necessary to combat promptly and vigorously diseases which place life in immediate jeopardy, as pneumonia, peritonitis, or meningitis; so it would be most irrational to attempt to jugulate disease of slow progress.

The *terminations* of disease are likewise the source of important indications, according as they result fortunately by the unaided powers of nature, as in erysipelas, simple icterus, etc. or lead to grave complications, as in suppuration in pneumonia, aneurism in endocarditis, etc.

The ancients attributed great importance to *prognosis;* but prognosis is only a deduction from the causes, progress, and terminations, and consequently is comprised in these elements.

Complications constitute, in certain cases, elements of greater gravity than the primary disease itself: for example, the cerebral and pulmonary complications of typhoid fever, meningitis in erysipelas of the face, pericarditis endocarditis in articular rheumatism, etc.

Lastly, the *treatment* is the source of most important indications; for there is no better guide, practically, than the results of the medication employed, and nothing indicates more positively the necessity of a change of measures than the negative or injurious effects of those previously used. It is this incontestable principle which furnishes empiricism with the strongest argument it possesses.

From these brief considerations, it results that each element belonging to diseases may, in its turn, constitute the leading element. Hence the insufficiency of exclusive doctrines; for the relative importance of these varied elements cannot be predicated in advance and essentially depends on the peculiarities of each particular case.

Our present intention is to examine the relations of the elements belonging to the class of symptoms, which form the principal, though not unique basis, on which diagnosis is founded. The student who has been initiated into a knowledge of the characteristic signs of different diseases, by learning individual symptoms, should proceed to study the semeiotic elements, hitherto separately considered, in these relations to one another, in their rational connection, in a word. This intellectual labor constitutes what I call the ready *method of diagnosis*, which conducts us, by the shortest path, to a sufficient knowledge of the disease.

I use this term in opposition to the *classical method*, which arrives at a knowledge of diseases only by reviewing methodically and minutely, in accordance with a given formula, all the details of the case. In instituting a parallel between these methods, I do not pretend that the former is surer than the latter, or sufficient for every case. On the contra-

ry, the classic method is more complete and solid. But in a multitude of cases, an adequate knowledge of the case may be acquired, without pursuing the interminable meanderings of the classical process, and the latter can add nothing but a conjoinative evidence to the precise diagnosis already attained.

If the ready method had no other use than to abridge the examination, and exhibit the talent for observation and tact of the practitioner, its advantages would be small. But it spares the patient much fatigue, and relieves him from prolonged manipulations, dangerous mental and physical efforts and varied annoyances, entailed by the stereotyped examination in true classical style. Important facts are brought out clearly, stripped of superfluous accessors, and unobscured by erroneous or equivocal replies from the patient. Moreover, expeditious diagnosis is a practical necessity, not only in reference to the patient too feeble to comply with the exigencies of the classic mode, but in regard to the majority of practitioners, who either know, or, at all events, practice no other. It is a delicate subject to treat, but it must be admitted that the complete classical method is almost confined to the schools and the savans. It is notorious that, as soon as the students leave the benches, they forget the use and utility of the thousand minutiæ they have been taught. Pressed for the time, harrassed by the difficulties, the prejudices, the vexations encountered at every step in private practice, very many come to be satisfied with a ready method of diagnosis of almost any sort; and God knows what sad blunders result from this voluntary constrained negligence.

It is with a view of offering to practitioners of this class an equivalent, in facility, for their habitual methods, but an equivalent far superior in value and security, that I have undertaken these disquisitions on diagnosis; which I would term the elements of medical algebra, were not the metaphor too ambitious and false; false, inasmuch as our art can never pretend to the precision of mathematical science.

Without going back to Pinel, who seems to have first conceived the idea of framing a formula for the interrogation and examination of patients, who ever has turned over the pages of one of the innumerable clinical manuals, compends or treatises published in the last thirty years, must have noticed the formal systems of examination; which, under the pretext of preventing the practitioner from blundering, inveigle him into a labyrinth, and take him through endless windings to a goal he might generally reach in a straight line. The laudable intentions of teachers have led, in fact, to those interminable books of questions, of which three-fourths, at least, are foreign to the case in point. I have never known

a student or physician willing to load his memory with these ponderous protocols, even were they signed Bouilland or Piorry. For common sense teaches that the interrogation should be confined to subjects necessary for the elucidation of the case in hand, which is commonly to be attained by simple and natural means, as we shall see.

Thus, for what are termed the *preliminaries* of the case, the *sex* and *constitution*, we see the *age*, written on the features, need hardly be ascertained mathematically. *Menstruation*, *marriage*, *maternity*, the *number* and *health* of *children* and of *parents* are of importance in certain cases only. The *profession*, *regimen* and *antecedent diseases*, are common places of no value in a multitude of cases. None of these circumstances will lead us to the diagnosis of a disease, though many of them it is well to know, when the diagnosis is once established.

Coming now to the *present disease*. In many cases of external affections, medical or surgical, the disease stares us in the face, and abridges the interrogation greatly. Without speaking of traumatic lesions, all diseases affecting the skin and the mucous membranes accessible to the eye or touch: next all diseases which are reflected exteriorly: icterus, scurvy, chlorosis and other cachexies, typhoid diseases, convulsive and paralytic affections, diverse dropsies, etc. etc. all give their name at the first glance, and require but few questions. In some instances the sense of smell instructs us before or simultaneously with the sense of vision: as in gangrene, the puerperal state, cancer, the typhoid state, etc.

In the exclusively internal diseases, after a careful glance at the general physiognomy of the case, the first question should be: *Where do you feel pain?* the hand pointing out the exact seat indicated by the reply. The second question is this; *How long have you been sick?* and the reply informs you whether the disease is acute or chronic. Provided with these two notions, *seat* and *duration*, the examination already assumes a precise direction, and you proceed, without waiting for other information, to the exploration of the organ or apparatus supposed to be affected, adopting first those means which procure the most precise information, and often the diagnosis is evolved in this first enquiry.

Having ascertained the material or *organic* conditions of the disease, as far as possible, you proceed to investigate the *functional* symptoms of the diseased organ, always in the order of their importance in a diagnostic point of view.

The disease once ascertained with precision, the hardest part of the task is accomplished. It remains to obtain information relative to the *etiology*, *progress*, *complications*, and *therapeutic means*, respecting all

the *anamnestics*, in short that, may be of utility. But the examination is concisely conducted in the directions indicated by the determined nature of the disease.

We see that, apart from the two questions already given, the examination is altogether a relative affair, and admits of no mixed formula. But, as we shall see, there are particular formulæ applicable to particular diseases, formulæ often susceptible of great abbreviation.

Having acheived the examination of the organ and disease, it is requisite to pass the other organs in review according to some settled plan, the choice of which is unimportant. Be careful to seek first for the capital symptoms, the presence or absence of which implies the integrity or alteration of the organ or function under examination. Thus the epiphenomena or complications are detected, and they must be looked for, even in the absence of suspicious symptoms.

But there are local diseases without pain, general diseases which cannot be accurately determined affections, in short, without local symptoms or seat; such are certain phlegmasiæ, termed latent, many organic lesions, some neuroses, intermittent fevers in the interval, certain humoral diatheses. We are then compelled to adopt the formal classic method, abbreviating as we can, and adhering strictly to enquiries relative to the organic and functional state, before descending to commonplace aimless questions. Example: a patient presents himself with no actual symptom, and gives us no information. We proceed to the examination, and discover a tumefaction of the spleen. It is highly probable that the patient has intermittent, a fact determined by a few questions. Another subject presents no appreciable material lesion, and we can elicit no satisfactory replies; but a paroxysm soon supervenes of chill, and sweating, and again reveals to us the nature of the affection. Such cases are among the most unfavorable to the ready method; but in such the classical method does not shine. Another example; a woman reduced to marasmus has been attended by several physicians who have not ascertained the nature of her complaint. We examine the details of the case, and are not more fortunate than our predecessors. But the idea occurs to us to taste (!) the urine, and we detect a diabetes mellitus. In fact the sweet taste of the urine is a pathognomonic sign offering one of the most striking examples of ready diagnosis.

These enigmatical cases constitute what I call *veterinary medicine*, in which the physician, in the absence of verbal information, is compelled to proceed as in the cases of animals. These cases are frequent; for they comprise, apart from stupid people, children, foreigners, delirious, apoplectic, asphyxiated patients, etc. etc. The best plan in every case is to

proceed at once to search for the affected organs, by the material processes of palpation, percussion, auscultation, etc. These cases have not been sufficiently provided for by the classic method.

Diagnosis, in general, should be divided into positive or negative, according as its object is to determine the presence or absence of lesion. Positive diagnosis arrives at the most insignificant symptoms, and negative diagnosis elicits the organic or functional evidence which imply the integrity of organs. The latter often leads to the former, as when, without any preliminary indication of the seat of trouble, we are compelled to pass all the organic apparatus in review.

The most constant effect of an organic lesion is to produce functional derangement; therefore from the integrity of function, we infer the soundness of the organ. On this principal, the theory of negative diagnosis is founded on the determination of the most significant functions, just as positive diagnosis is based on the determination of the most expressive symptoms. This premised, I proceed to certain formulæ for negative diagnosis, applicable to the principal organs.

Digestive apparatus.—Have you appetite? How is your digestion? Are your bowels regular? affirmative replies on these three points afford a strong presumption that the disease is not located in the digestive organs; for there is scarcely any affection in this system, that does not modify the appetite, digestion, or defecation.

Respiratory apparatus.—Do you breathe well? have you cough? Do you raise? Satisfactory replies make it probable that these organs are in a good state, for dyspnœa, cough and expectorations are inherent characteristics of most disorders of this apparatus.

Circulatory apparatus.—Do you feel your heart beat? This is about the only question you can address to common people; but it is adequate in most cases, almost every heart disease producing palpitation or præcordial distress. The pulse and auscultation will clear up the diagnosis.

Cerebro-spinal apparatus.—Here questions are, strictly speaking superfluous. The physiognomy, the speech, the gait and motion, almost always indicate at once whether nerve centres are intact.

Apparatus of special Sensation.—Do you see and hear well? Such are almost the only questions appertaining to this category; for the organs of taste and smell belong to the digestive and respiratory apparatus, and skin diseases reveal themselves.

Urinary apparatus.—Do you urinate without trouble? Is your water clear? These two questions are in general sufficient.

Genital apparatus.—Inspection, and the two preceding questions

suffice in the case of males. In females, we enquire: Are you regular? Have you the whites? Replies to these questions convey what is essential respecting puberty, pregnancy, the menopause, the different affections of the uterus and vagina; for disordered catamenia and vaginal discharges of some sort characterize almost all the sexual derangements of females.

We see by these examples how easy it is to arrive at a negative diagnosis, by keeping to the radical essential elements, which imply the rest. Of course, where practicable, the *ready diagnosis* should be corroborated by other questions and the usual methods of exploration. I wish simply to say that a negative diagnosis, sufficiently accurate for the generality of cases, may be attained very promptly. It should be an invariable rule to accompany or follow the interrogation by palpation and inspection of the organs examined. An abnormal swelling, in the provocation of pain by pressure may throw a flood of light on the morbid condition, which normal conformation and insensibility confirm the replies favourable to the idea of health.

PERISCOPE.

Nouvelles recherches sur l'importance des fonctions des capsules surrénales. Par le Dr. E. Brown-Séquard.

La grande découverte du Dr. Thomas Addison, découverte destinée à prendre rang parmi les plus importantes de notre siècle, attira mon attention presque aussitôt après sa publication. J'avais déjà publié, en 1851, un fait assez remarquable à l'égard des capsules surrénales (1). J'avais trouvé que la section d'une moitié latérale de la moelle épinière, dans une partie des régions dorsale et lombaire, sur les cochons d'Inde, produit d'abord une congestion et après plusieurs mois, une hypertrophie des deux capsules surrénales. Cette relation singulière entre la moelle épinière et ces petits organes est bien digne d'attention, d'autant plus que, ainsi que je le montrerai dans un autre travail, il y a lieu de penser que dans quelques cas de fracture du rachis, une congestion considérable des capsules surrénales semble devoir être rangée parmi les circonstances qui hâtent la mort. Mais je laisserai de côté, dans ce mémoire, les relations entre le système nerveux et les capsules, et je m'occuperai surtout de l'importance des fonctions de ces petites glandes.

Dans mon premier travail à ce sujet (2), j'annonçai que chez tous les

(1) *Comptes rendus de la Soc. de Biol.*, t. III, 1851, p. 146, et *Gaz. méd.*, 1852, p. 73.

(2) *Comptes rendus des séances de l'Acad. des sciences*, 1856, vol. XLIII, p. 422.

animaux sur lesquels j'avais enlevé les deux capsules surrénales, ou un seul, la mort était survenue rapidement. Mais, en me fondant sur ce que j'avais vu deux animaux (un chien et un chat), chez lesquels je n'avais enlevé qu'une seule capsule et qui semblaient devoir survivre à l'opération, lorsqu'ils furent tués accidentellement ; en me fondant aussi sur ce qu'une seule glande peut suffire à remplir les fonctions de deux semblables, je déclarai que bien que je n'eusse pas vu jusqu'alors un seul animal survivre définivement à l'ablation d'une seule capsule surrénale, je croyais probable, qu'en multipliant les expériences, on verrait des survies définitives après cette opération.

J'annonçai de plus que la mort après l'ablation des capsules survenait trop tôt pour qu'on pût l'attribuer exclusivement à une lésion des reins, du foie ou du nerf grand sympathique.

Enfin je fis remarquer que le sang des animaux, dépouillés de capsules surrénales, semblait se charger d'un principe toxique. Du moins ce sang, pris sur des lapins à l'agonie, après la perte des capsules, et injecté dans les veines de lapins ayant perdu, depuis quelques heures seulement, une seule capsule, les faisait mourir rapidement ; tandis que, d'un autre côté, du sang de lapin en bonne santé, injecté dans les veines d'un lapin à l'agonie, après l'ablation de l'une ou des deux capsules, le faisait revenir à la vie pour quelques heures.

En outre, j'ajoutai que l'ablation des reins tue moins vite que celle des capsules surrénales.

M. Gratiolet écrivit à l'académie (1) qu'il avait fait, sur des cochons d'Inde, quelques expériences dont il résultait que l'ablation de la capsule surrénale gauche n'amenait pas toujours la mort, tandis que celle de la capsule surrénale droite causait constamment la mort par suite d'une inflammation du foie et du péritoine.

Dans un second travail que je présentai à l'académie (2), à la séance suivante, j'insistai sur ce fait que la mort ne pouvait pas dépendre d'inflammations accidentelles qui, se développant lentement, ne sont pas arrivées à un degré suffisant d'intensité lorsque la vie cesse, pour que l'on considère ces inflammations comme ayant causé la mort.

Peu de temps après, je publia un mémoire très étendu sur la physiologie des capsules surrénales (3), mémoire dans lequel se trouvent exposées presque toutes les recherches que j'avais faites jusque-là sur ces petits organes. Avant d'aborde l'étuder des faits nouveaux que je me

(1) *Comptes rendus de l'Ac. des sciences*, 1856, vol. XLIII, p. 468.

(2) Voyez *Comptes rendus*, 1856, vol. XLIII, p. 542.

(3) *Arch. génér. de médecine*, oct. et nov. 1856, p. 385 et p. 572.

propose de publier ici, je vais donner une analyse rapide des résultats généraux consignés dans ce mémoire.

1° A l'égard des nerfs, j'ai trouvé chez le lapin, le cochon d'Inde, le chien et le chat, que les capsules ont dans leurs nerfs quelques fibres de Remak, que les fibres à double contour y sont rares et que les fibres sympathiques de Bidder et Volkmann y abondent.

2° J'ai constaté que, sur les lapins, les capsules sont souvent plus sensibles que la peau des membres, car, lorsqu'on les écrase, il est fréquent que l'animal crie, tandis que le pincement de la peau ne le fait pas crier. La sensibilité des capsules est vive aussi chez les chats, mais elle est moindre chez les chiens, et surtout chez les cochons d'Inde.

3° Les auteurs qui ont cru que les capsules sont des organes transitoires et que leur activité n'est grande que pendant la vie embryonnaire, se sont certainement trompés. Ils ne se fondaient que sur le rapide développement des capsules chez l'embryon humain, et sur cet autre fait qu'à la naissance les reins sont moins développés que les capsules. Mais en admettant l'exactitude de cette assertion, elle prouve seulement que les fonctions des capsules ont plus d'activité que celles des reins pendant la vie intrautérine dans l'espèce humaine. Chez d'autres mammifères et chez quelques vertébrés à sang froid, le développement des capsules n'est pas plus rapide que celui des reins. J'ai constaté d'ailleurs que les capsules surrénales gagnent notablement en poids à partir de la naissance jusqu'à l'âge adulte, et moins chez l'homme, cependant, que chez les chiens, les chats, les cochons d'Inde et les lapins. De ces faits j'ai conclu que les capsules surrénales ne sont pas comme le thymus chez la plupart des animaux, des organes transitoires, appartenant seulement aux premières périodes de la vie.

4° J'ai constaté que la survie moyenne, après l'ablation simultanée des deux capsules surrénales, était de 9 heures et quelques minutes sur les lapins, de 14 heures sur les chiens et les chats adultes, de 8 heures sur deux souris, de 13 heures sur onze cochons d'Inde adultes, de 23 heures ½ sur quatre jeunes cochons d'Inde, de 37 heures sur onze chiens et chats très jeunes. Ce qui donne comme moyenne générale 17 heures ½. En multipliant ces expériences, depuis la publication de mon mémoire, j'ai obtenu des résultats qui ne diffèrent guère des précédents, ainsi que je le montrerai tout à l'heure.

5° J'ai annoncé que j'avais vu survivre des chiens et des cochons d'Inde, après l'ablation de la capsule surrénale droite, celle que, suivant M. Gratiolet, on ne pouvait enlever sans produire une péritonite et une hépatite mortelle. Cependant j'avais vu que la mort avait lieu assez fréquemment et assez rapidement, après l'ablation d'une seule capsule

(la droite ou la gauche), surtout chez les lapins, pour pouvoir conclure que, même dans ce cas, la mort semblait due à l'absence de l'organe enlevé.

6° Parmi les symptômes très intéressants que l'on observe après l'ablation des deux capsules, j'ai signalé surtout un affaiblissement considérable et des troubles constants de la respiration et de la circulation. La force des mouvements du cœur est toujours diminuée ; quand à la vitesse de ces mouvements elle est d'abord diminuée aussi, mais plus tard, alors que la respiration d'abord activée devient gênée et lente, le cœur bat plus vite. Pour les détails de ces faits je renvoie à mon mémoire ; mais je crois devoir ajouter ici qu'il n'y a pas de *fièvre*.

7° Les animaux ayant perdu les deux capsules surrénales refusent de prendre des aliments. J'ai vu cependant deux exceptions à cette règle.

8° Dans les dernières heures de la vie il y a quelquefois du délire et très souvent des convulsions. Celles-ci ressemblent, le plus souvent, aux convulsions dues à de la strychnine. Quelquefois il y a des convulsions épileptiformes, avec tendance à rouler, tantôt d'un côté, tantôt de l'autre Chez les lapins assez souvent il y a eu du tournoiement.

9° J'ai trouvé, dans le sang des animaux dépouillés des capsules, plus de pigment qu'on n'en rencontre ordinairement, et souvent ce pigment était en plaques bien plus larges que le diamètre des capillaires de l'encéphale.

10° J'ai constaté que la formation de cristaux du sang, différant par quelques caractères de ceux qui proviennent du sang normal, s'opère souvent *spontanément*, très vite et quelquefois en très grande abondance, dans le sang extrait des vaisseaux d'animaux dépouillés des capsules surrénales.

11° J'ai cherché par des expériences nombreuses à montrer que la mort des animaux dépouillés des capsules ne peut pas être attribuée, ni entièrement, ni même principalement, à des causes accidentelles, telles qu'une péritonite, une hémorrhagie, une néphrite, une phlébite des veines rénales ou de la veine cave, une hépatite ou une excitation des filets du nerf grand sympathique.

12° J'ai signalé ce fait singulier que, si les animaux dépouillés d'une seule capsule meurent avant le développement d'une péritonite intense, on les voit souvent *rouler*, comme après la piqûre du pédoncule cérébelleux moyen. Il importe de remarquer que le roulement commence par le côté *gauche* si c'est la capsule *droite* qui a été enlevée, et *vice versâ*.

13° J'ai trouvé qu'une maladie extrêmement fréquente chez les lapins, à Paris, maladie qui semble causer toujours la mort et dans un

temps très court, semble liée à une production exagérée de pigment et à une inflammation consécutive des capsules surrénales. Les symtômes de cette maladie sont les mêmes que ceux de l'ablation de ces petits organes.

14° J'ai essayé de montrer que la plus grande analogie existe entre les symptômes de la maladie dont je viens de parler, ceux de la maladie d'Addison et ceux que l'on peut observer après l'ablation des deux capsules.

15° J'ai fait voir que les fonctions des capsules surrénales doivent être d'une très grande importance, puisque l'ablation de ces petits organes amène la mort plus vite que l'ablation des reins.

16° En rapprochant les faits que j'ai trouvés chez les animaux de ceux observés par le Dr. T. Addison et d'autres, on constate qu'en l'absence des fonctions des capsules surrénales, il se fait une accumulation de pigment, dans le sang chez les animaux, et dans la peau chez l'homme. Il y a donc lieu de supposer qu'une des fonctions des capsules consiste en une modification d'une substance douée de la propriété de se transformer en pigment, modification d'après laquelle cette substance perdrait cette propriété.

A continuer.

The Medical Chronicle.

LICET OMNIBUS, LICET NOBIS, DIGNITATEM ARTIS MEDICÆ TUERI.

The Disclosure.—Our Correspondent who signed himself "a veritable M.D.," having no longer any reasons for withholding his name and address, has boldly declared them in a letter which will be found immediately following this notice. Its author, Dr. Stevens of Dunham, thus enables us to fulfil the promise, implied in our last, of affording this information, after a little while, to the gentlemen who had sought it. In the publication of the original letter we were moved by no hostile feeling towards any one, nor had we the slightest desire of using it as a means of prejudice or injury. Altogether irrespectively of any personal feelings,—we gave it insertion simply because it referred to a matter of public interest, affecting the rights of the profession generally. Not having an actual knowledge of the circumstances involved, we refrained from expressing an opinion as to their veracity or not

feeling assured that if the charges alleged were unfounded, they would meet with a prompt contradiction. Replies, as our readers know, were duly received, and with them they have been made acquainted. They have accordingly been put in possession of both sides of the question, together with such explanations as were considered necessary.

Journal de la Physiologie de l'homme et des animaux, publié sous le direction du Docteur E. Brown-Séquard.—Many of our readers being of French extraction we have often regretted that we had no Parisian exchanges, so that we might from time to time bring before them articles written in their own language. We hail, therefore, with great satisfaction, the appearance in Canada of the Journal, the title of which we give above, and from whose pages we transfer to the columns of our present number a portion of a paper from the pen of the distinguished editor-in-chief. The "Journal de la Physiologie" is to be published quarterly. Each number will contain 216 pages. The first has been brought out in good style by Messrs. Balliere & Son of Paris. The agents for America are Messrs. B. Waterman & Co., New York, who will supply it to subscribers for about $5 per annum. Under the management of that eminent physiologist Brown-Séquard, ably assisted, as he will be, by Ch. Robin, Ch. Ronget, and Tholozan, men of mark and distinction in the scientific world, this Journal is sure to succeed in every respect.

Death of Dr. Church M. P. P.—It is our duty to announce the sudden death in Toronto, last month, of Dr. Church, the representative in Parliament of Leeds and Grenville. Dr. Church had resided since the commencement of the session, in Mrs. Brown's boarding house, King street West, and dined there, as usual, at two o'clock on the afternoon of the same day. Although at times before suffering from ailments which were believed to partake of a rheumatic nature, he was then in his customary health and spirits; and when, after dinner he separated from friends to retire to his room, it was with the view of completing letters connected with the business of his constituency. In about twenty minutes afterwards, Col. Playfair, M. P. P., visited Dr. Church's room; knocking without receiving a reply, he opened the door, and then discovered the Doctor in his chair, with his face upon the table, dead. Aid was immediately obtained, but without being of the slightest avail: the attending physician, Dr. Ogden, expressed an opinion that the death had resulted from apoplexy.

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L'Ecraseur in Canada.—In a communication over the signature of Arthur Ricard, M.D., which appeared in some of our daily newspapers, occurs the following passage :—

" Dr. Delisle is probably the first person who, publicly, has made known in America *L'Ecraseur* and its effects. Honor then to Dr. Delisle! honor to this distinguished scholar of the Canadian Medical Schools, who, after receiving the instructions of the greatest masters of Europe, has come amongst us to make known the good results obtained by the Surgical Art."

The writer is evidently ignorant of what is done beyond his own little sphere, and appears, like too many others, to think that the small circle within which he moves comprises the world itself. Had he known anything of American literature he would not have committed so palpable an error as to attribute the introduction of the Ecraseur into this quarter of the globe to Dr. Delisle. Indeed, had he even been acquainted with the literature of the town in which he resides, he must have known that this instrument has long before now been in use amongst us. For his edification we would especially refer him to the Medical Chronicle for December, 1857, where he will find recorded a case of internal piles, admitted the preceding February into the Montreal General Hospital, and treated by Dr. MacCallum, professor of clinical surgery, with the Ecraseur. The remainder of the paragraph above quoted needs no notice.

Memorial of the College of Physicians and Surgeons, C. E., proposed to be submitted to his Excellency the Governor General.

" That by the position of the College of Physicians and Surgeons, as representing the Medical profession in the Province of Lower Canada, it has been entrusted with interests of great vital importance, inasmuch as these interests are intimately connected with the welfare and happiness of the people :

That at a semi-annual Convocation of the Governors of the College, held at Quebec in the month of October, 1856, a Resolution was unanimously adopted by that body, appointing a Committee for the District of Quebec, and another for that of Montreal, for the important purpose of " ascertaining the best means of extending the usefulness of the College to the Medical profession, and the public in general ":

That voluminous Reports thereon, were at a subsequent meeting of the Board of Governors, submitted to its consideration, and approved :

That at the meeting of the Board of Governors, held at Quebec on the 13th October last, it was deemed necessary—founded on the Report of the two Committees specially assembled at Montreal on the preceding day—to modify the proceedings involved in the various subjects embodied in the Reports previously alluded to, and to nominate the two Vice-Presidents, with associative power,

to carry into effect, through your Excellency's assistance and that of the Legislature, the Report of the College, embodying several important measures. With regard to that portion which comes more immediately within the action of the latter, your Memorialists would respectfully beg leave to draw your Excellency's attention to that part which has reference to the education and qualifications of Apothecaries, Chemists, and Druggists, with necessary provision for the inspection of Drugs, and stringent regulations for the Sale of Poisons.

As it must appear to your Excellency that the subject involves interests of the highest importance to society, and in a great measure the safety and protection of life, we would earnestly recommend to your Excellency's consideration the Bill hereunto annexed, as taken in part from Sections of 27th Will. IV. Chap. 1, and intituled "Bill for the Regulation of the Studies of Apothecaries and the Sale of Poisons."

The other subjects included in the Report of the Board of Governors of the College of Physicians and Surgeons, come more immediately under your Excellency's prerogative, and among them one has reference to "the appointment of a Commission, under whose directions should be enforced those hygienic rules or measures which have been recognized as serviceable, during the prevalence of epidemics, for securing the health of towns, &c."

On this portion of the Report your Memorialists would respectfully observe:

That as sanitary measures are incontestably of the highest importance to all countries, and particularly to this Province, where largely populated localities extend, in a direct line of communication, several hundred miles, thus bringing the inhabitants into constant and immediate intercourse with those but recently landed from on Board of ships,—in which not unfrequently the most malignant and contagious diseases have prevailed during long voyages at sea,—we regret that the Provincial Act now in force, and commonly called the "Central Board of Health Act," should have been so framed as to prove extremely defective in its operations.

An extended experience of those calamitous and disastrous periods in which it has been enforced, has fully convinced your Memorialists that this Act is altogether inadequate for ensuring those comprehensive and vigorous measures so urgently demanded on the approach and invasion of a great and destructive pestilence or malignant disease; and the better to provide to the population at large the benefit and protection of well-considered and efficient sanitary measures, with all the appliances that modern science can devise, we would most earnestly recommend to your Excellency that none but men of distinguished professional acquirement and practical experience should be entrusted with the execution of these measures,—the more especially as their minds will have been trained to the investigation and solution of abstruse subjects, and therefore emergently prepared to engage in all enquires connected with public hygiene, with correct information and without prejudice.

As it is, furthermore, evident that it can only be in proportion to the extent to which these measures are scientifically and systematically carried out, that any substantial benefits can be secured, your Memorialists would with deference suggest, that that Act should receive such amendments as would enable Commissioners, appointed under its provisions, to take such measures of promptitude

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as will meet the exigencies of the case, for the prevention, or at least the mitigation, of these diseases, without reference to the approbation of their directions and regulations by any other executive authority. This is an exception which of late years has loudly called for public consideration, and particularly during the existence of a pestilential type of typhus, in seasons of scarcity and general destitution among the labouring classes, and the unexampled intensity and fatality of cholera.

Your Memorialists may be permitted to submit, that, as the College of Physicians and Surgeons should, in our opinion, present the aspect of a vigorous energetic corporation, whose deliberations have constantly in view, not only the honor, elevation, and usefulness of the Medical profession, but essentially the welfare and interest of the public, we deem it also one of our duties to awaken a stronger feeling than heretofore, in the public mind, in favour of our Provincial College, and to endeavor by every public means to create a closer bond with the Government of the country. We do under no less an analogy than the College of Physicians of London, as well as those of Paris and other Continental countries, these learned bodies being affiliated to and associated with their respective governments in all matters connected with so important and vital a subject as the public health.

Your Memorialists having in view the rapidly increasing population of this part of the Province, and the inevitable future inadequacy of the Beauport Lunatic Asylum to meet the wants of a most unfortunately afflicted portion of the human family, would respectfully represent to your Excellency the necessity for the early erection of an asylum in the immediate neighbourhood of the City of Montreal, on the unoccupied grounds which have been for so many years purchased for that purpose by the Provincial Government. Your Memorialists deem it their duty to bring this subject prominently before your Excellency, as one embodying the truest principles of philanthropy.

Another important subject has also engaged the attention of the Board of Governors, and, as it bears reference to "the appointment of medical men as Coroners, or Associates, especially in the large cities of the Province," your Memorialists would respectfully observe, in conclusion, that, as it has long been a matter of common assent in England, Ireland, the United States of America, and Upper Canada, strengthened by the opinion of the highest judicial authorities in these countries, that a knowledge of medical science, comprising medical jurisprudence, in the broadest acception of this term, is the most material qualification for the peculiar, and often difficult, complicated, and delicate functions which a coroner has to perform, they would earnestly solicit, that in the exercise of your Excellency's prerogative, appointments to an office of such unquestionable importance in its connection with the criminal jurisprudence of the country, should alone be conferred on persons of acknowledged distingished acquirements in the medical profession, as being more peculiarly qualified to discharge effectually the duties of that office."

HOSPITAL REPORTS.

Fracture of the Acromion Process extending into the Acromio-Clavicular Articulation, with subsequent dislocation of Acromial Extremitiy of the Clavicle. Reported by Mr. W. HARKIN.

John Lynch, aged 41, a shoemaker, was admitted into the Montreal General Hospital, March 5th, 1858, under Dr. MacCallum.

The patient is a man of spare habit and dark complexion. His health has been generally good. On the 1st of March he was walking on George Street, when he slipped and fell, striking first upon his right hand, which he put out to save himself, then rolled over and struck the point of his shoulder against the sharp edge of a door. Upon rising he felt a severe pain in his shoulder, and was unable to raise his arm, or to move it much except backwards and forwards, and could not fully extend the forearm. He applied to a medical gentleman who proceeded as if to reduce a dislocation by putting his heel into the axilla and making powerful extension. It was afterwards put up with a pad in the axilla and strips of plaster across the shoulder, and some bandages.

These soon fell off, and when he came to the Hospital the symptoms were as follows. The shoulder was depressed, and there was a hollow on its superior part. The clavicle and with it the acromion process of the scapula were separated from the latter bone nearly two inches, being directed downwards and a little forwards. He could not move the arm without experiencing great pain, and could not raise it more than two inches from his side. When the arm was raised he could hold it for a short time in the extended position, the shoulder being rounded on each side but depressed in the centre. On placing one hand over the extremity of the acromion and pressing up and rotating the humerus with the other, a distinct crepitus was perceived. The deformity was easily removed by elevating the humerus, but returned immediately when the support was taken away. Fracture of the acromion process of the scapula was diagnasticated, and it was treated by a pad placed between the elbow and side, the elbow supported in a short sling, the arm bandaged to the side, and pressure exerted over the acromion by a few turns of a roller. This brought the parts into accurate apposition, and the natural contour of the shoulder was restored. Matters progressed favorably until the fourth day, the bandages merely requiring to be tightened occasionally, when a great and unnatural protrusion appeared over the acromion. This proved to be the extremity of the clavicle, and Dr. MacCallum accounted for its dislocation in the following way. The

as will meet the exigencies of the case, for the prevention, or at least the mitigation, of these diseases, without reference to the approbation of their directions and regulations by any other executive authority. This is an exception which of late years has loudly called for public consideration, and particularly during the existence of a pestilential type of typhus, in seasons of scarcity and general destitution among the labouring classes, and the unexampled intensity and fatality of cholera.

Your Memorialists may be permitted to submit, that, as the College of Physicians and Surgeons should, in our opinion, present the aspect of a vigorous energetic corporation, whose deliberations have constantly in view, not only the honor, elevation, and usefulness of the Medical profession, but essentially the welfare and interest of the public, we deem it also one of our duties to awaken a stronger feeling than heretofore, in the public mind, in favour of our Provincial College, and to endeavor by every public means to create a closer bond with the Government of the country. We do under no less an analogy than the College of Physicians of London, as well as those of Paris and other Continental countries, these learned bodies being affiliated to and associated with their respective governments in all matters connected with so important and vital a subject as the public health.

Your Memorialists having in view the rapidly increasing population of this part of the Province, and the inevitable future inadequacy of the Beauport Lunatic Asylum to meet the wants of a most unfortunately afflicted portion of the human family, would respectfully represent to your Excellency the necessity for the early erection of an asylum in the immediate neighbourhood of the City of Montreal, on the unoccupied grounds which have been for so many years purchased for that purpose by the Provincial Government. Your Memorialists deem it their duty to bring this subject prominently before your Excellency, as one embodying the truest principles of philanthropy.

Another important subject has also engaged the attention of the Board of Governors, and, as it bears reference to "the appointment of medical men as Coroners, or Associates, especially in the large cities of the Province," your Memorialists would respectfully observe, in conclusion, that, as it has long been a matter of common assent in England, Ireland, the United States of America, and Upper Canada, strengthened by the opinion of the highest judicial authorities in these countries, that a knowledge of medical science, comprising medical jurisprudence, in the broadest acception of this term, is the most material qualification for the peculiar, and often difficult, complicated, and delicate functions which a coroner has to perform, they would earnestly solicit, that in the exercise of your Excellency's prerogative, appointments to an office of such unquestionable importance in its connection with the criminal jurisprudence of the country, should alone be conferred on persons of acknowledged distingished acquirements in the medical profession, as being more peculiarly qualified to discharge effectually the duties of that office."

HOSPITAL REPORTS.

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fracture had extended into the acromio-clavicular articulation, rupturing the acromio-clavicular ligaments, the superior at least. When the arm was bandaged firmly to the body and the shoulder raised by a short sling, the acromion was fixed from below by the ball of the humerus pressing on it and acting as a splint, while it was secured from above by the turns of the roller which were carried over it. The clavicle was thus placed between two fixed points, and certain movements of the body would act with greater power on its scapular extremity than if the shoulder and arm were free. In consequence, therefore, of some sudden movement of the body during the night while the patient was asleep, the force of which was expended principally on this extremity of the clavicle, it was thrust through the ruptured ligament and became placed upon the acromion process. He stated further, that deformity was almost inevitable in consequence of the compound nature of the case, but that the man would have notwithstanding a very useful limb.

The clavicle was then reduced as well as possible by drawing the shoulders forcibly backwards; and in addition to the bandages, &c. which had been previously employed for the fracture, there was an apparatus adjusted to keep the shoulders in this position. This consisted of a cross made of wood well paddedand laid against the back, and to which the shoulders were firmly bandaged.

On the 10th April, five weeks from the time of his admission, he left the Hospital. Union has now taken place, and at the site of fracture there is a distinct ridge as if from the presence of "ensheathing callus." The prominence produced by the dislocated clavicle has much diminished, and there is not the same amount of flatness of the shoulder. The motions of the arm are perfect in a direction forward and backward; he can raise his arm freely, to a certain extent but he cannot extend it fully without experiencing some pain.

Conical Cornea, treated by Paracentesis Cornecæ, combined with pressure

Reported by Mr. Louis Robitaille.

Mary Quinlan, aged 18, who was admitted into the Montreal General Hospital for Common Continued Fever, came under the care of Dr. MacCallum on the 1st February, 1858. While under treatment, attention was drawn to her right eye, in consequence of the peculiar brilliancy of the cornea. She states that while young she was much troubled with sore eyes; and, as far back as her memory serves her, she has had great difficulty in distinguishing objects with the right eye. Latterly, this imperfection of sight has increased so much, and interferes to so great a

degree with her movements, she has found it difficult to obtain employment as a servant, or to retain a situation. When she looks at an object, a black spot, sufficient to obscure it, intervenes between the object and her sight. Has suffered for years from a constant pain extending across the right orbit, from the inner to the outer angle. Has had likewise pain in the forehead of an intermittent character.

On examination, the eye has a lustrous appearance; and when she looks at a person, her head is held downwards and towards the right shoulder, imparting an awkward and sheepish appearance to the patient. The central portion of the cornea is raised into a cone with a somewhat pointed apex, whilst the circumferential portion appears to retain its natural convexity. On the point of the cone there is a transparent depression, resembling much the appearance left after the absorption of a phlyctenula. The elevation of the cornea is best perceived by examining the eye in profile, or by making the patient close the eye. In the former case, it looks as if there was a conical crystal affixed to the front of the cornea; in the latter, the prominence is readily perceived protruding the upper lid. When the left eye is closed, and a hand is held at some distance before the centre of the cornea of the right eye, she can merely perceive that there is some object before the eye. If it be held, however, near the outer or inner portion of the circumference, she can make out the object as being a hand.

On the 18th February, the operation of paracentesis corneæ was performed, giving escape to a considerable quantity of the aqueous humour. Immediately after the puncture and discharge of fluid, the cornea became more rounded, and the patient declared that she could see much better. The eye was left in this condition until the next day (19th Feb.) when an accurately fitting compress was carefully adjusted over the globe of the eye, and retained in its position by means of a bandage. She was ordered at the same time the following mixture:—℞ Quin. Sulph., gr. viii.; Pot. Iod. ʒii.; Acidi Cit. ʒ ss.; Aquæ ℥ vi A tablespoonful to be taken three times a day. The compress and bandage were left on, being occasionally adjusted, until the fifth of March. On removal it was found that the eye still presented the same brilliant appearance, but that the corneal cone was not so prominent as it had been. The patient says her sight has improved, and is desirous to have the operation repeated. All pain in the orbit has completely disappeared. On the 9th of March the cornea was again punctured, and in the evening of the same day the compress and bandage were applied. They were removed on the 26th March, a few days before she left Hospital. There is still some elevation of the centre of the cornea. She is satisfied, how-

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ever, that her sight has materially improved. When the hand is now held before her eye she can count the fingers with ease, and the outline of every object is very distinct. There is not the same uncertainty in her movements that there was previously, nor does she appear to be so awkward in her manner.

Melanopathia in a patient with Mitral valve disease of the Heart, &c.
Reported by Mr. Wm. Harkin.

C—— aged 39, was admitted into the Montreal General Hospital, March 24th 1858, under Dr. McCallum. Has no family history of hereditary disease, and his own health was pretty good till the year 1852. Was a hotel keeper, but of temperate habits and his business obliged him to be on foot for 18 or 20 hours each day. In 1844, he had frequent attacks of palpitation and dyspnœa. Dropsy first made its appearance in October, 1852, but for a year previously he felt his health gradually declining. The dropsy began first in his feet and ankles and became general, but disappeared under treatment by the May following. He has had a similar attack every winter since, and with each attack he has had a cough and expectoration like at present. The chief medicines he took were Tr. of Aconite and Iodide of Potassium, of this latter he has taken an immense quantity. Has been able to attend to his business every summer hitherto, either as hotel keeper or bookkeeper, and he blames standing so much during summer for the return of the dropsy in winter. His ankles were never quite free from swelling from the first attack till a few weeks ago.

Present attack commenced in November last, and the swelling disappeared about the 1st of February (1858), the cough began about 7 weeks ago and continued to grow worse till he entered Hospital, when his condition was as follows: considerably emaciated except his face which was somewhat bloated looking, and suffused, eyes dull and heavy, conjunctivæ of a yellow tinge, lips livid, great dyspnœa very much increased by the least exertion Skin somewhat harsh and dry, pulse irregular, weak, small & 64, and respiration 20 per minute, bowels costive, cough frequent and troublesome, increased by least exertion, expectoration about 8 ounces daily, and mucopurulent without any tinge of blood, urine high colored from bile, and scanty, when he walks he feels a desire to micturate. Inspection, chest symmetrical, except at the junction of 4th and 5th left ribs, with their cartilages, where there is considerable bulging. This was caused by a fall that he got from a horse 12 years ago The left side of the chest measures at the nipple 18 inches, and the right 18½ inches,

at the same point. No sinking above the clavicles, but the carotid arteries pulsate so strongly, that he complains of it. There is visible pulsation in the jugular veins. Percussion yields normal sounds over the whole of the chest, except that the Cardiac dulness is somewhat increased. Hepatic dulness normal. Auscultation—mucous and cooing rales heard over the whole of the chest, but best marked at the anterior inferior part, where they obscure the sounds of the heart.

The first sound of the heart is almost replaced by a murmur best heard beneath the left nipple and towards the axilla, but also heard at the ensiform cartilage and at the junction of the cartilage of the 4th rib with the sternum. The hand placed over the heart feels a slight heaving motion, but there is no fremissement cataire. The second sound of the heart is weak and somewhat obscured both by the murmur of the first sound and by the bronchitic rales in the lungs.

There is a very peculiar discoloration of both legs, almost like logwood, beginning about two inches below the knees and terminating at the ankles, above and below these points the skin is mottled with spots of a similar color, and there are none on any other point of his body. The color is deepest about the middle of the leg. The veins are knotty and of a peculiar milky appearance, both on the internal and external sides of each leg, being largest and most conspicuous at the ankles and at the heads of the tibia. The legs are of their natural size but have a peculiarly dry feel. The motion of the ankle joints is now perfect, for the first time since his first attack of dropsy in 1852. He was ordered—Pulv. Jalapæ grs. xv; Scammon. grs. v. Cal. iij.

And a cough mixture of Tr. Sanguinariæ, Vini Ipecac àa ʒ ij., Spir. Ammon. Aromat. ʒ iij. sol. Morphiæ ʒ j., aquæ ad ℥ vj. ʒ ss., to be taken every fourth hour.

April 1st.—Cough less troublesome, expectoration diminishing, sleeps better at night, bowels costive, pulse 60, and irregular, jugulars pulsate and fill from below, murmur well heard at ensiform cartilage, has frequent desire to stool but does not pass anything.

April 7th.—℞ Oleum Ricini ʒ ij.

April 10th.—Pulse weak, irregular and 76. Tongue slightly coated with a yellowish matter. Bowels regular—occasional darting pains in the region of his heart. Urine still high colored and less than a pint in 24 hours, coughs very seldom at night, expectoration much diminished. Legs as formerly.

April 30th.—His bronchitic attack has completely subsided, and the icteroid hue of skin and conjunctiva has disappeared.

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QUARTERLY REPORT OF THE MONTREAL GENERAL HOSPITAL, ENDING 22ND APRIL, 1858.

Patients remaining from last quarter,	86	Died during the quarter,	5
Patients admitted present quarter,	127	Now in Hospital,	61
		Discharged,	147
	213		213

IN-DOOR PATIENTS.		OUT-DOOR PATIENTS.	
Males,	74	Males,	618
Females,	53	Females,	660
	127		1278

DISEASES AND ACCIDENTS.

DISEASES, &C.	Died.	Admitted.	DISEASES, &C.	Died.	Admitted.
Abscessus,		1	Hysteria,		2
Ambustio,		2	Inebrietas,		1
Amenorrhœa,		1	Lupus,		1
Anasarca,		1	Luxatio,		2
Anchylosis,		1	Melanopathia,		1
Arthritis,		1	Menorrhagia,		1
Ascites,		1	Molluscum,		1
Bronchitis,		5	Morbus Cordis,		2
Broncho-pneumon,		1	Ophthalmia Scrof.,		3
Bursitis,		2	Orchitis,		1
Caries,		1	Paralysis,		1
Cataractus,		2	Paronychia,		1
Conjunctivitis,		4	Peritonitis Puerp.,		1
Contusio,		1	Phthisis,	3	3
Delirium Tremens,		3	Ptyalismus Acut.,		1
Diarrhœa,		1	Ramollissement Cerebr,		1
Dysuria,		1	Resectio Phalangis,		1
Ecthyma,		1	Rheumatismus,		9
Epilepsia,		2	Rubeola,		2
Febris Com. Cont.,		13	Scarlatina,		2
Febris Ephemeralis,		1	Sclerotitis,		3
" Intermittens,		2	Staphyloma,		1
Fractura Comp. Commin.,		2	Synovitis,		1
" Simplex,	1	4	Syphilis,		2
Furunculus,		3	Tonsillitis,		2
Gelatio,		2	Tumor,		3
Gonorrhœa,		1	Ulcus Cruris,		1
Hœmoptysis,		1	" Recti,	1	9
Hæmorrhoides,		4	Vulnus,		4
Hemiplegia,		1			
Hypochondriasis,		1		5	127

OPERATIONS, &c.

MAJOR AMPUTATIONS.—Of hands, 2; of foot, 1; of fingers, 2; of toes, 5. Resection of phalanx, 1; removal of necrosed tibia, 1. *Excisions*—Of recurring fibroid tumour, 1; of encysted tumour, 2; of epithelial cancer, 1. Removal of internal piles, 2; artificial pupil, 1; keratonyxis, 2; tenotomy, 1. Total, 22.

FRACTURES.— { Simple—Indoor, 4; out-door, 2 / Compound " 2 } Total, 8.

DISLOCATIONS REDUCED.—Indoor, 2; out-door, 3. Total, 5.

MINOR OPERATIONS.—Venesections, 6; cuppings, 24; starched bandages applied, 17; hydrocele tapped, 1; abscesses opened and other incisions, 97; teeth extracted, 173; wounds dressed, 15. Total, 333.

ATTENDING PHYSICIANS—Drs. MacCallum and Scott.

By Dr. Reddy.—Operation for cataract, (Keratonyxis.)

ROBERT CRAIK, M.D.,
House Physician and Surgeon.

MEDICAL APPOINTMENTS.

SECRETARY'S OFFICE,

Toronto, 24th April, 1858.

His Excellency the Governor has been pleased to make the following appointments, viz:

Patrick Edward McKeon, Physician and Surgeon, and Alexander Harvey, M.D., Esqs., to be Associate Coroners for the United Counties of Peterborough and Victoria.

Richard Leech, Esq., to be an Associate Coroner for the United Counties of Leeds and Grenville.

Toronto, 3rd April, 1858.

His Excellency the Governor General has been pleased to make the following appointments, viz:

Easton Hawkesworth, Esquire, M.D., to be an Associate Coroner, for the United Counties of Huron and Bruce.

His Excellency the Governor General has been pleased to grant a License to John Turner Mullin, of St. George, in the County of Brant, Esquire, M.D., to practice Physic, Surgery and Midwifery in Upper Canada.

To the Editors of the MEDICAL CHRONICLE.

GENTLEMEN,—I declare myself to be the author of the letter signed "A Veritable M.D.," published in the February number of the *Chronicle*, and that I am in possession of proofs to substantiate the correctness of the charges it contained against the three Governors of the College of Physicians and Surgeons, in the district of Bedford, and am prepared to adduce these proofs before this corporation or elsewhere whenever demanded.

With reference to the questions in the last *Chronicle*, which you suggest should be inquired into, I have no hesitation in replying to each in the affirmative.

Were there unlicensed practitioners practising in the same parts with these gentlemen? YES!

Did the former enjoy a protection from the latter? YES!

Were they there with their consent or upon their invitation? YES!

Did they act in consort with them as assistants or consultants or deputies? YES!

Respectfully yours,

Dunham, C. E. A. D. STEVENS, M.D.

QUARTERLY REPORT OF THE MONTREAL GENERAL HOSPITAL, ENDING 22ND APRIL, 1858.

Patients remaining from last quarter,	86	Died during the quarter,	5
Patients admitted present quarter,	127	Now in Hospital,	61
		Discharged,	147
	213		213

IN-DOOR PATIENTS.		OUT-DOOR PATIENTS.	
Males,	74	Males,	618
Females,	53	Females,	660
	127		1278

DISEASES AND ACCIDENTS.

DISEASES, &c.	Died.	Admitted.	DISEASES, &c.	Died.	Admitted.
Abscessus,		1	Hysteria,		2
Ambustio,		2	Inebrietas,		1
Amenorrhœa,		1	Lupus,		1
Anasarca,		1	Luxatio,		2
Anchylosis,		1	Melanopathia,		1
Arthritis,		1	Menorrhagia,		1
Ascites,		1	Molluscum,		1
Bronchitis,		5	Morbus Cordis,		2
Broncho-pneumon,		1	Ophthalmia Scrof.,		3
Bursitis,		2	Orchitis,		1
Caries,		1	Paralysis,		1
Cataractus,		2	Paronychia,		1
Conjunctivitis,		4	Peritonitis Puerp.,		1
Contusio,		1	Phthisis,	3	3
Delirium Tremens,		3	Ptyalismus Acut.,		1
Diarrhœa,		1	Ramollissement Cerebr,		1
Dysuria,		1	Resectio Phalangis,		1
Ecthyma,		1	Rheumatismus,		9
Epilepsia,		2	Rubeola,		2
Febris Com. Cont.,		13	Scarlatina,		2
Febris Ephemeralis,		1	Sclerotitis,		3
" Intermittens,		2	Staphyloma,		1
Fractura Comp. Commin.,		2	Synovitis,		1
" Simplex,	1	4	Syphilis,		2
Furunculus,		3	Tonsillitis,		2
Gelatio,		2	Tumor,		3
Gonorrhœa,		1	Ulcus Cruris,		1
Hœmoptysis,		1	" Recti,	1	9
Hæmorrhoides,		4	Vulnus,		4
Hemiplegia,		1			
Hypochondriasis,		1		5	127

OPERATIONS, &c.

MAJOR AMPUTATIONS.—Of hands, 2; of foot, 1; of fingers, 2; of toes, 5. Resection of phalanx, 1; removal of necrosed tibia, 1. *Excisions*—Of recurring fibroid tumour, 1; of encysted tumour, 2; of epithelial cancer, 1. Removal of internal piles, 2; artificial pupil, 1; keratonyxis, 2; tenotomy, 1. Total, 22.

FRACTURES.— { Simple — Indoor, 4; out-door, 2 / Compound " 2 } Total, 8.

DISLOCATIONS REDUCED.—Indoor, 2; out-door, 3. Total, 5.

MINOR OPERATIONS.—Venesections, 6; cuppings, 24; starched bandages applied, 17; hydrocele tapped, 1; abscesses opened and other incisions, 97; teeth extracted, 173; wounds dressed, 15. Total, 333.

ATTENDING PHYSICIANS—Drs. MacCallum and Scott.

By Dr. Reddy.—Operation for cataract, (Keratonyxis.)

ROBERT CRAIK, M.D.,
House Physician and Surgeon.

MEDICAL APPOINTMENTS.

Secretary's Office,

Toronto, 24th April, 1858.

His Excellency the Governor has been pleased to make the following appointments, viz:

Patrick Edward McKeon, Physician and Surgeon, and Alexander Harvey, M.D., Esqs., to be Associate Coroners for the United Counties of Peterborough and Victoria.

Richard Leech, Esq., to be an Associate Coroner for the United Counties of Leeds and Grenville.

Toronto, 3rd April, 1858.

His Excellency the Governor General has been pleased to make the following appointments, viz:

Easton Hawkesworth, Esquire, M.D., to be an Associate Coroner, for the United Counties of Huron and Bruce.

His Excellency the Governor General has been pleased to grant a License to John Turner Mullin, of St. George, in the County of Brant, Esquire, M.D., to practice Physic, Surgery and Midwifery in Upper Canada.

To the Editors of the Medical Chronicle.

Gentlemen,—I declare myself to be the author of the letter signed "A Veritable M.D.," published in the February number of the *Chronicle*, and that I am in possession of proofs to substantiate the correctness of the charges it contained against the three Governors of the College of Physicians and Surgeons, in the district of Belford, and am prepared to adduce these proofs before this corporation or elsewhere whenever demanded.

With reference to the questions in the last *Chronicle*, which you suggest should be inquired into, I have no hesitation in replying to each in the affirmative.

Were there unlicensed practitioners practising in the same parts with these gentlemen? Yes!

Did the former enjoy a protection from the latter? Yes!

Were they there with their consent or upon their invitation? Yes!

Did they act in consort with them as assistants or consultants or deputies? Yes!

Respectfully yours,

Dunham, C. E. A. D. Stevens, M.D.

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